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RESULTS
OF
OBSERVATIONS OF THE FIXED STARS

MADE WITH THE
MERIDIAN CIRCLE

AT THE
GOVERNMENT OBSERVATORY, MADRAS,

IN THE YEARS
1862, 1863 AND 1864,

UNDER THE DIRECTION OF
NORMAN ROBERT FOGSON,
C I E, F R A S, & F M U

(GOVERNMENT ASTRONOMER AT MADRAS)

PUBLISHED BY ORDER OF THE GOVERNMENT OF MADRAS

M A D R A S
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To

THE RIGHT HON'BLE SIR MOUNTSTUART ELPHINSTONE GRANT DUFF,
LATE GOVERNOR OF MADRAS, GCSI, CIE, FRS, MA, &c, &c

HONORABLE SIR,

The present volume, the first of a new series of Madras Observations, was intended to have been issued long before your retirement from the high and distinguished office of Governor of Madras, and was by your kind permission to be specially dedicated to you, whose discerning, enlightened and liberal views in regard to the encouragement of science, alone enabled me to commence publication, by the removal of certain arbitrary and suppressive restrictions which have prevented me and my predecessors from attempting anything of the kind for considerably more than thirty years past

Without prompt publication of results, scientific researches in general, and above all astronomical observations, are comparatively useless. I came to India deeply impressed with this view, and with the full intention of bringing out an annual volume, and now that you Sir have rendered this possible, and I have every reason to feel assured that your successors in office will continue the valued privilege which you first saw fit to concede to the Madras Astronomer, *in*, the right of distribution of his publications, enjoyed by every other astronomer in the world but so long disallowed at Madras, the one Observatory of India will, I hope, speedily recover its prestige and remain an enduring evidence of one of the many benefits conferred upon Southern India, during your regime as Her Majesty's representative at Madras

With grateful recollections of past kindness and best wishes for your health, happiness and future well earned distinctions,

I remain, Honorable Sir,

Your most obedient Servant,

N R POGSON

INTRODUCTION

Meridional observations were commenced at the Madras Observatory on January 9th, 1793, with a little twenty inch transit instrument, by Stanchiff, and a twelve inch altitude and azimuth instrument, by Troughton, neither of them bearing an object glass of so much as an inch and a half in aperture. With these diminutive appliances the work of the Observatory was carried on until the year 1829. The records of the first nineteen years were simply copied out and transmitted to the Honorable Board of Directors of the East India Company. Those from 1812 to 1825 were published in two bulky folio volumes, but consisted only of unreduced observations of the Sun, Moon, old planets and brighter fixed stars. These two volumes were published by the Honorable Company's Astronomer, Mr J D Goldingham, as Volumes 3rd and 4th, with a view to the previous records being subsequently printed, an arrangement which however was never carried out.

An important step in the history of the Observatory was made in the year 1830, when a five foot Transit Instrument and a four foot Mural Circle, both by Dollond, with object glasses of nearly four inches aperture, were erected under the superintendence of Mr T G Tylor, one of the most able and energetic astronomers of his day. With these instruments, the celebrated "*Madras Catalogue*," containing positions of 11,015 stars reduced to the Epoch 1835, was accomplished between the years 1831 and 1843, and in spite of its weakest points, large instrumental errors of an unexpected nature in the Mural Circle, which Mr Tylor did his best to eliminate before printing his final catalogue, its value at the present date may be inferred from the circumstance of a new edition being now called for by European astronomers. It is scarcely necessary to mention that I shall respond to this call with great pleasure as soon as the results of my own labors have been laid before the world, and time permits of the investigation of the remaining errors, both casual and systematic, which still require correcting in the former catalogue. The addition of the mean dates of observation in each co-ordinate, which will of course entail reference to every individual observation upon which the final star positions are based, is also a matter of such importance that there could be no excuse for its omission in case of a second edition of the Catalogue.

The Transit Instrument and Mural Circle were next employed, between 1849 and 1852, in the revision of 1440 stars of the British Association Catalogue, under the direction of Captain W S Jacob, Bombay Engineers, the results being published in Vol VIII of the second series of Madras Observations

A considerable number of star observations, made with the same instruments between 1853 and 1858, under the superintendence of Captain Jacob and of Major W K Worster, Madras Artillery, but only partially reduced to apparent places, will, when completed, form another catalogue of about 2,200 stars, for the epoch 1855. A selection of 317 of these stars, suspected of large proper motion, was printed in the "*Memoirs of the Royal Astronomical Society*", Vol XXVIII

There are also 1,331 observations of the Sun, 345 of the Moon, 1,680 of the principal planets and 333 of various minor planets, made with the old instruments during the same years, in continuation of those given in Volume 7 of the "*Madras Astronomical Observations*" awaiting publication

It is now about forty years since the Astronomer Royal (then Prof G B Airy) introduced a most important change in regard to meridian instruments, by suggesting a Transit Circle for the Royal Observatory in place of the two separate instruments hitherto employed for determining the absolute Right Ascensions and Polar Distances of celestial objects at Greenwich. The advantages of having both co ordinates observed at the same time and by the same person, are so obvious, that it is surprising the old practice was so long endured by astronomers. The Royal Observatory was supplied with a magnificent Transit Circle in 1850, which was brought into use the following year, the object glass of its telescope being eight inches and its divided circle six feet in diameter. A fac simile of the Greenwich instrument, subsequently supplied to the Cape Observatory, was first used there in 1855. Meanwhile however, in 1852, Mr R C Carrington of Redhill, had a Transit Circle constructed for him by Messrs Troughton and Simms, similar in all essential points to the new one at Greenwich, and divided by the same exquisite machinery, but with a five-inch object glass and a forty two inch circle instead of the much larger and more costly size adopted at the Royal Observatory. When no longer required at the Redhill Observatory this fine instrument was removed to the Radcliffe Observatory, at Oxford, in 1861, and has been used there ever since.

In the year 1855, by the liberality of the Board of Directors of the Honorable East India Company, a new Transit Circle, similar to Mr Carrington's, was ordered of Messrs Troughton and Simms, upon the recommendation of Captain Jacob. The general superintendence of its construction was kindly undertaken by Mr Carrington, who, in consultation with its able makers, advised such alterations in its various details as the experience of his own instrument had led him to consider advisable. The Transit Circle reached Madras in March, 1858, only a month before Captain Jacob's departure, and although orders were immediately issued for its erection, unforeseen difficulties and above all frequent changes in the direction of the Observatory, prevented it from being ready for use until four years after its arrival.

Similar instruments have since been supplied by the same eminent firm to Melbourne, Sidney and many other observatories, both public and private, at home and abroad. The description already given of any one of these instruments is so nearly applicable to all the others that the following brief details of the Madras Transit Circle may seem to many supererogatory, especially as the instrument has now been in constant use for nearly a quarter of a century.

BUILDINGS

These consist of two blocks,—one comprising the old Observatory with its more recent additions, a long, low, narrow structure, extending 196 feet from East to West, by 25 from North to South, the other, the residence of the Astronomer, facing south east, about 120 yards south west of the former, and covering a space of 75 by 50 feet. The original Observatory, built in 1792, consisted of a single room, 40 feet long by 20 broad and 15 high inside, with massive walls, over two feet in thickness. The floor rests on beams supported entirely by the walls and detached from the instrumental basement, which consists of a solid pyramidal mass of masonry, 37 feet long by 6 feet wide at its upper surface, 6 feet in depth, and 15 feet long by 12 feet broad below, probably little less firm or massive than a solid rock of similar dimensions. A conical granite pier rests on the centre of this mass, 4 feet in diameter at its base, tapering up to 2 feet at its total height of 18 feet, and weighing certainly over ten tons. This was the pier originally provided for the little 12 inch alt-azimuth by Troughton, while the small Transit by Stancliffe and the Transit clock, both rested on granite supports.

each weighing about $2\frac{1}{2}$ tons. When Mr Taylor replaced the small instruments by the Dollond Transit and the Mural Circle in 1830, they were fixed on stone piers, the former as far east and the latter as far (to the) west as the basement would allow, on opposite sides of the great central conical frustum, which was retained in position as a huge counterpoise, though no longer used as a support for any instrument.

The present Meridian Circle occupies the same position as Mr Taylor's Transit instrument, looking through the same slits in the roof and walls, which have however been made 22 inches wide instead of only 15 as formerly. Two brick piers were first erected for its reception, but these were condemned by Major Woistell, in January 1859, and were replaced by excellent granite ones, under Major Tennant's superintendence, in 1860. Each of these piers measures $4\frac{1}{2}$ feet by 2 and rises 4 feet above the floor of the room. Four composition blocks, each $4\frac{1}{4}$ feet long by 2 wide and 2 feet 2 inches high, were sent out with the new instrument from England, and on two of these, surmounting the granite base piers, rests the Meridian Circle, with its pivot centres 6 feet 2 inches from the floor. The other two composition blocks or cap stones support the counterpoise arrangements and raise the piers to a total height of 8 feet 4 inches. The clear space between the piers for the observer is 39 inches.

Want of proper instructions, or possibly the loss of such if sent, in regard to the cap stones, caused much difficulty and delay in the erection of the instrument, as if placed in position as they were sent out, the pivots would have been built into two 12-inch square holes, inaccessible even for cleaning and oiling, while the instrument could never have been lifted so much as six inches out of its bearings, whatever alterations or repairs might at any time become necessary. Two slices of $9\frac{1}{2}$ inches thickness were accordingly cut out of the middle of each cap stone and these were afterwards found very useful in overcoming another difficulty of construction which will be described further on.

About the year 1845, when the Magnetical Establishment was removed to the Observatory, the old transit room received considerable extensions, rendered necessary for the accommodation of the additional instruments and assistants transferred to the care of the Government Astronomer. Eastward was added, first, a covered passage, 20 feet long by 8 broad, leading to the Dip circle room, which measured 16 feet by 26 feet, next a magnetic room,

45 feet by 15 feet, in which the Bifilar, Vertical Force and Declination Magnetometers were placed and read hourly up to March 1861, and third, a small Transit-theodolite room, 16 feet by 12 feet, used in connection with the Declination Magnetometer and as a computing room for the head magnetical Assistant. About 30 feet more eastward stands a small detached room, 22½ feet by 15 feet, used only for periodical determinations of the absolute Horizontal Force, by means of the usual deflexion apparatus supplied to all the magnetical observatories started upon the recommendation of the Royal Society in the year 1841.

Westward of the old transit room were added two small rooms, each 20 feet by 15 feet, the first being used as a computing and manuscript room and the other as a store room for instruments and other property not in actual use.

In the year 1872 three additional rooms for celestial photography were hurriedly run up on the roof over the Transit Circle room, just in time to secure photographs of the annular eclipse of the Sun on June 6th of that year. The fine silver glass nine inch reflector by John Browning, used by Colonel J. F. Tennant, at Guntoor, on the occasion of the total solar eclipse on August 18th, 1868, having been altered, repaired and sent to Madras by the advice of the Astronomer Royal in 1871, for use at Avenash in the Coimbatore District, during the next total eclipse which India was privileged to witness on December 12th, 1871, was afterwards brought to Madras and mounted upon the large granite conical pier before mentioned, a room, 21 feet by 15 feet, being built to enclose it. A flat sliding shutter was provided, which when rolled off westward, left a square opening of 10 feet, giving the reflector a fair command of the sky except near the horizon where it was never likely to be used for photographic purposes. Two small rooms adjoining, one dark for developing and the other for printing and other purposes, were also prepared in time for the annular eclipse in 1872. Very complete and convenient arrangements for securing celestial photographs were made, ostensibly with a view to the approaching Transit of Venus, on December 8th, 1874, and the Browning reflector was in readiness for that important event, but unfortunately cloudy weather prevented any photographs from being taken and the telescope was dismounted and sent to Calcutta, in compliance with orders from the Government of India, in February 1875.

A small portable equatorial^e, with a 3½-inch object glass by Dollond, has — — — e since been placed in the reflector-room and is occasionally used for casual

phenomena, such as eclipses or occultations, but all photographic operations were of course stopped by the removal of the reflector. The recent wonderful advances in celestial photography may render the renovation and equipment of this part of the observatory a very important step in regard to observations in the near future.

The house, originally provided for the Astronomer's use only, is a still older and more substantial building than the Observatory proper already described, and much of it is now given up for purely official purposes. It contains in all eighteen rooms, eight on the ground floor, seven on the first floor and three on the roof. The ever increasing and already valuable and extensive Library occupies two rooms on the ground floor, and in these also are placed the electrical clock and telegraphic appliances used for giving true time to the local shipping and generally to all parts of India. A granite step of the north east door of the Library is a bench mark of the G. T. Survey of India and is 22 feet above mean sea level. The private office of the Astronomer is immediately over the Library, and on the roof are, a small Anemograph room, $10\frac{1}{2}$ feet square, a 16 foot circular room with an excellent revolving dome, containing a fine eight inch Equatorial by Messrs Troughton and Simms, and another, slightly smaller but similar room, for the six inch Equatorial by Messrs Lerebours and Secretan, formerly used to such good purpose by Captain Jacob in measurements of double stars and of Saturn's satellites.

Photographs or drawings of the buildings and of the chief instruments were intended to have been given in this volume, but are unavoidably deferred for the present.

THE MERIDIAN CIRCLE

This fine instrument, as already stated, was made by Messrs Troughton and Simms, in consultation with the late Mr. R. C. Carrington, and its general excellence has proved most satisfactory. The clear aperture of the object glass is $5\frac{1}{2}$ inches and its focal length about 50 inches, the magnifying powers of the eye pieces being very nearly as engraved on each, *viz.*, 105, 147 and 230. The middle power has been used throughout. A Bohnenberger's eye piece, power 106, was also supplied for determinations of the nadir point and level error.

The horizontal axis consists of a central 12 inch cube and two cones,

each ten inches in diameter at the cube and in one casting of gun-metal therewith, bearing at their extremities the pivots, also of gun metal, which are 3 inches in diameter and rest in brass Y's, adjustable vertically only by screw-motion, any change in azimuth requiring the forcible bodily movement of the east pivot support by means of double wedges, but such adjustment has only been once needed since the instrument was finally mounted in 1862. The pivots and Y's are so well boxed in with close fitting brass covers that dust and moisture are effectually excluded.

The two ends of the telescope are each screwed to the cube by twelve stout bolts. There are two nearly similar gun metal 42 inch circles, each firmly secured by means of eight screws to truly faced flanges, attached to the conical axes on opposite sides of the cube. The clear space between the two circles is just 30 inches. The eastern circle is coarsely divided, to 10' only, for setting, and is also intended as a handle for turning the instrument round. It is clamped by two clamps, with slow motions and tangent rods, which have generally been used for making bisections in preference to the micrometer of the eyepiece, ever a fruitful source of error in polar distance determinations. The western circle carries a rim of gold, inclined at a level of about 12° to the plane of the circle to facilitate reading and illumination, and is divided with Messrs Troughton and Simm's well known precision into 5' spaces. The divisions are read off by six microscopes of very considerable magnifying power, so placed as to bring their micrometer eyepieces within a circle of 30 inches diameter and for the lower microscope to read zenith-distances. Each microscope micrometer screw moves a pair of close parallel wires, the nearest division of the limb being brought midway between them instead of being bisected by cross wires. The divided circle is enclosed in a light open work box to shield it from accidental injury by the observer.

The greatest source of delay and difficulty in mounting the instrument was in regard to the fixing of the six microscopes. It was (obviously) intended that they should be placed as they now are, for the lower one to read zenith distances, and the hole for it to look through was drilled in the lower part of the western pier in readiness. This however caused the upper microscope, in the cap stone above, to come immediately above the flame of an argand lamp, provided for lighting up the field of view, or the wires in a dark field, and for the general illumination of the limb opposite to each microscope. It was soon found that the much smaller flame of a thin flat wick gave ample illumination for the limb and also for the wires in a bright field, though not

sufficient for the satisfactory use of bright wires in a dark field. With one of the slices cut out of the cap stones, as mentioned on page vi, a conical frustum, of 24 inches base and 19 at its face, was attached to the western pier, projecting 6 inches from it, and with a continuation of the 12-inch square space left for the pivot supports, through its centre. By placing a small lamp therein, with a bent chimney to carry off all smoke and as much heat as possible, the difficulty was at last overcome, certainly not as arranged by Messrs Troughton and Simms but quite effectual for the purpose. The conical projection lies between the micrometers, serving as a protection to them against possible injury, but is neither in the way nor in the least unsightly, and no one seeing the instrument for the first time would imagine for a moment that it was any addition to or departure from the original design. The light of the small lamp is guided and condensed by a frame of seven lenses, a large central one for illuminating the field, and six smaller ones for distributing it where required upon the divided limb under each microscope.

Two pairs of brass arcs had been provided for the support of the other four microscopes, one pair for the eyepieces and micrometers on the outside western face of the pier, and a larger pair, to bear the objectives on its eastern or inner side, apertures being also left in the composition stones for the long tubes connecting the eyepieces and their objectives, but in order to fix the upper microscope after cutting out a $9\frac{1}{2}$ inch slice just where it had to come, two more similar metal arcs had to be cast and made up here. Considering the difficulty of getting anything of the kind done in Madras in those times, it would have been much better for Messrs Troughton and Simms to have sent out a skilled mechanic to assist in the erection of the instrument, but it fortunately happened, that in September, 1861, a German Mathematical Instrument maker, the late Mr F Doderet, was sent out by the Right Honourable, the Secretary of State for India, to start workshops for the repair of levels, theodolites, &c, for the Public Works Department, and as no place, plant or assistants were prepared for him, I was readily granted the benefit of his services for six months. Major Tennant, when in charge of the Observatory had purchased for Government an excellent lathe, by Holtzaffel, and with it and a supply of other tools from the Arsenal, we set vigorously to work and got the Transit usable for time determinations by the end of the year, and all the modifications required in the microscope arrangements finished in May 1862, when complete observations were first steadily commenced.

Heavy counterpoises, with their fulcra resting on inch thick iron plates, crossing the cry stones, relieve the Y's of most of the weight of the instrument, by means of two pair of 5 inch friction rollers, applied to grooves on the axis between the circles and pivots, small additional weights sufficing to lift it out of its bearing for cleaning and oiling. The residual pressure of the pivots upon each Y is about 10 or 12 lbs.

A finder, 15 inches in length and $1\frac{1}{2}$ in aperture was added to the telescope, presumably for estimating the magnitudes of the brighter stars but its utility for that or any other purpose is very questionable.

The telescope eyepiece was provided with a system of seven vertical and one horizontal spider lines, moveable each way by micrometer screws of practically the same thread. The single horizontal line was replaced by a close pair, about 12" apart, and bisections have throughout been made by bringing stars exactly midway between the two when crossing the centre vertical wire. For observations of Mars especially, the estimated equality of the segments above and below, was unquestionably better than tangential contacts of a single line with either north or south limb.

For collimating, two 35 inch telescopes with $2\frac{1}{2}$ inch object glasses, were mounted on piers, level with the centre of the Transit circle, inside the room, and at a distance of 57 inches from the object glass of the instrument when turned to either the north or south horizon. The central cube is pierced by two 4 inch circular apertures, so that the wires in each collimator can be seen through the other when the circle reads 180° . The south collimator micrometer moves horizontally, for fixing an approximate meridian line, and the north one vertically, so as to give a nearly horizontal line for flexure determinations. Having only native assistants for observers and considering therefore that extreme simplicity would ensure the safest results, I did not adopt the Greenwich pattern of wires, but preferred simple crosses, that in the north collimator being arranged as in the sign \times and that in the south collimator as $\cdot +$, which I thought better suited to those who had to use them.

Upon my arrival at Madras I found the collimators placed outside the Observatory in small square detached rooms, twenty feet further from the Transit circle than they now are. This was far more convenient as regarded space inside, and would have permitted of reflection observations being taken much lower, had such been possible and urgently desirable, but I soon

found upon trial, that the passage of the visual rays through three strata of air of very unequal temperatures, caused the wires to appear so faint and tremulous that I gladly removed the collimators inside the Observatory, as Mr Carrington's were placed at Redhill, and the result was all that could be expected or desired

A convenient transit observing seat runs on six rollers, between the circle piers, from one collimator pier to the other, and on the instrumental basement, a foot below the boarded floor, in which are five hinged trap doors, is a railway for two moveable reflexion troughs, besides a fixed circular one, vertically below the centre of the Transit circle, for use with the Bohnenberger eyepiece, for nadir point and level error determinations

CLOCKS AND CHRONOGRAPH

One of those rare and matchless old clocks, by Shelton, with a gridiron pendulum the compensation of which as nearly approaches perfection as possible, was found in India when the Observatory was first started in 1792, and is to this day by far the steadiest timekeeper in the place. It was used as the transit clock till 1859, when it was replaced by a new one by Dent, with a mercurial pendulum, of the best modern construction, but certainly no improvement upon the old one except in its far louder and more convenient beat. Some of the mercury was accidentally spilt in setting up the new clock and though more was added to replace the missing quantity, its compensation has never yet been so satisfactory as that of the old Shelton, which has since been used with the principal Equatoreal. The performance of the Dent transit clock has, however, been good throughout and no better could be desired as a standard sidereal regulator

A curious old clock, by Haswall, used by Mr Goldingham in his pendulum experiments in 1821, with a mainspring instead of a weight and a very peculiar double escapement, was formerly used with the old mural circle and was most capricious in its daily rate. The escapement being simplified and the spring exchanged for a barrel and weight, it has been used with the smaller equatoreal since 1866, and has worked better, though never comparable to the two first named

An excellent mean time electrical clock by Shepherd & Son, was supplied to the Observatory in 1872, and though severely criticized when under trial at the India Store Department for instruments, at Lambeth, it has worked well

enough at Madras. It transmits hourly currents, by which a time gun at Fort St George, about three miles distant, is fired at noon and 8 p.m., and a semaphore at the Marine Office, a mile further, is dropped at 8 a.m. and 2 p.m., with as few failures as are usually made in time signals elsewhere. It also passes alternately positive and negative currents, second by second, for the control of sympathetic clocks, one of which has been going at the Marine Office since 1879, as fairly as could be expected considering its very indifferent treatment ever since it was set up. When first received at Madras, the Shepherd clock had a magnetic contrivance for the daily rectification of its small error, as necessary in all electrical motor clocks, and this was undoubtedly the source of dissatisfaction when on its trial in London, as until it was discarded nothing could be done with the clock here. As soon however as a simple gravitation adjustment was substituted, consisting of a small brass weight of 150 grains, which when placed upon a shelf about 18 inches below the point of suspension of the pendulum makes the clock gain a hundredth of a second per minute, or lose at the same rate when placed on another shelf below the pendulum jaw, all irregularities ceased and no further difficulty was experienced.

Application was made for a chronograph in 1863, chiefly with a view to carrying out telegraphic longitude operations, and for observations of Mars in opposition for investigation of the constant of solar parallax. A barrel chronograph was specified as being the only kind desired, the time marks being read off with so much more certainty, speed and convenience when in parallel rows on a single sheet than from many yards of a thin paper tape or fillet. My application received no reply at the time, but several years later a French fillet recorder was sent out, too late for the special purposes for which it was wanted and quite unsuitable, even if it had been supplied when asked for.

OBJECTS SELECTED FOR OBSERVATION WITH THE TRANSIT CIRCLE

The objects selected for observation with the new Meridian-circle were, the brighter stars inclusive, down to the 5th magnitude, the moon and moon culminating stars given in the Nautical Almanac, Mars and the stars observed with him at successive oppositions, on the meridian, as well as those used east and west, with the Equatorial, for parallax investigations, minor planets in opposition, if not under the 10th magnitude, comparison stars used for differential observations of comets and planets from 1861, all known

variable stars, zero stars for maps of those objects in hand, and as many others, not below the 9th magnitude, as time would permit, between 130° and 150° Polar Distance, as determining stars for the zones of the Southern Survey, in extension of the late Prof Argelander's great Northern Survey, which, with that distinguished astronomer's warm approval and advice I had intended to make my chief personal labor at Madras. The very extraordinary opposition met with to this work, from a quarter whence such was least expected, partitioning out in portions to other observatories the work I had undertaken as a whole, compelled me to abandon any participation in its accomplishment at the end of 1863, after it had been fairly commenced in that year.

The refusal of European assistance, after I had been authorized to apply to Prof Argelander and Mr Hind to suggest for appointment any well qualified young astronomer either of them might know of as available, was a death blow to the too ambitious programme I had undertaken and an unforeseen justification for my renunciation of the Southern Survey. The local Government and its distinguished chief, Sir W Denison R E, had warmly supported my plea for a German or English assistant, and were so well assured of its being granted, that the plan and estimate for separate quarters in the Observatory grounds, for the accommodation of a Deputy Astronomer, were sanctioned and the foundations actually laid out, before the refusal of the promised help was received from the India Office in London. My intention was to have only a small catalogue of stars observed by the native assistants with the Meridian Circle, pending completion of the first few maps of the Southern Survey, and as soon as the approximate catalogues, similar to those of the Bonn "*Durchmusterung*" were available, to have all the stars they contained observed in zones with the new instrument, just as the "*Durchmusterung*" itself has been since dealt with by the northern observatories.

Finding that the Meridian circle must be used by native observers only, who though good for the slow methodical processes of ordinary meridian observations, could never be entrusted with the more arduous work of zoning, the best course was to increase the former observing list by the addition of as many anonymous stars of more than 120° Polar Distance as could be found, not less than the 8th magnitude. No star was to be observed on less than five nights and all objects of more than ordinary interest on at least ten nights, and this has been adhered to throughout, wherever possible.

OBSERVATIONS

Observations with the Meridian Circle, the results only of which are given in this volume, were almost entirely made by three native assistants, who were as fair observers as could probably be found of their class. The first Assistant, C Sashoo Iyengar, was scrupulously careful and accurate and was warmly commended by every Astronomer, from 1837 up to the time of his death, in March, 1863. He was succeeded by C Ragoonatha Chary, whose better mathematical attainments and general aptitude for science, justified me and my friend, Mr E B Powell, then Director of Public Instruction, and one of the greatest authorities upon the subject of Double Stars, in recommending him for the honor of election as a Fellow of the Royal Astronomical Society. The other native assistant who took part in the meridian observations was T Moottoosawmy Pillay, also a very trusty, painstaking man. All three had used the old meridian instruments, but it was not until after more than a year's practice with the new Transit circle that I dare trust them to determine all their own instrumental corrections in the ordinary course of the night observations, though decidedly convinced that it is far better to do so than to make special determinations and interpolate for the required dates, however steady the corrections may be. There were such evident personalities between them, that from the first I made each assistant find his own corrections, nearly always being present, until I became assured that it would be safe to entrust them with such manipulations alone. The corrections for index and run of the microscopes micrometers were, from the first, found at night, but those for inclination and collimation in the day time, until September 1863. Due allowance being made for diurnal aberration, the right ascension micrometer was set to the corrected reading for no collimation, and until April 1863, when the use of the polar distance micrometer was first considered prudent, bisecting wires were made with the tangent rods and slow motions of the clamps. Even then it proved a very questionable step and was a fruitful source of error long after its introduction.

Observations were entered, in pencil, in convenient recording books as they were made. The standard barometer, by Newman, supplied by the Royal Society in 1841, and one of two thermometers, verified at Kew, were recorded for refraction reductions, the one used being at either a north or south window, according to the direction of the wind at the time of observation.

REDUCTION OF THE OBSERVATIONS

These were carried out in folio day books. The originals were bound for preservation in the Observatory, but as in the tropics it seems impossible to ensure that for long, copies were made for safer deposit in England, where they may be readily available for reference whenever desirable.

The arrangement of the day books is as follows —

Left side — Polar Distance 12 columns	Right side — Right Ascension 17 columns
1 —Reference Number	1 —Reference Number
2 —Date and Observer	2 —Name of Object
3 —Barometer	3 —Number of Wires
4 —Thermometer	4 —Estimated Magnitudes
5 —Name of Object	5 —Mean of Wires —the clock time of transit over the mean of the seven wires being meant in all cases, and every object observed over a less number being reduced thereto by the adopted intervals of the wires noted
6 —Deduced Circle Reading — <i>i. e.</i> —zenith distance counted round through south nadir and north up to 360°, the means of the six microscopes, corrected for index, run of micrometers, and curvature if not observed at the centre of the field	6 —Inclination correction
7 —Refractions, computed by " <i>Bessel's Tables</i> " as modified and expanded in an appendix to the Greenwich Observations for 1853	7 —Collimation correction
8 —Apparent Polar Distance, assuming the latitude as given in the Nautical Almanac, <i>viz.</i> , 13° 4' 8" 1 north	8 —Meridian correction
9 —Reductions to January 1st, using the "Day Numbers" of the Nautical Almanac, and constants calculated for every star not in the N. A. list for the year	9 —Personal equation of Observer
10 —Mean Polar Distances of Stars	10 —Sum of columns 6, 7, 8 and 9
11 —Apparent Polar Distance by Ephemeris	11 —Corrected clock time of transit
12 —Correction to Ephemeris	12 —Clock correction applied
	13 —Apparent Right Ascension
	14 —Reduction to January 1st, calculated as in column 9 of the Polar Distance page
	15 —Mean Right Ascensions of Stars
	16 —Apparent Right Ascension by Ephemeris
	17 —Correction to Clock or Ephemeris

The contents of the Observing or Recording books and of the Reduction or Day books are now rarely published except at national Observatories, colonial and private Observatories seldom having either the staff or the funds required for printing such voluminous details, of questionable interest or utility to those who only desire results.

The horizontal wires were most carefully adjusted, so that a star brought exactly between them upon entering the field of view was satisfactorily so when quitting it at the opposite side and no correction was therefore required for the very few cases in which a star was not bisected close to the middle transit wire

The value of one revolution of the Polar Distance micrometer, found by bisecting the cross of the north collimator with the close horizontal wires at different settings of the micrometer and reading off the Circle, was $26'' 33$. Measured by means of coincidences between the wires and their reflected image, it was $26'' 37$. The mean value, $26'' 35$ was adopted

The value of one revolution of the Right Ascension micrometer, found in a similar manner, after turning the eyepiece end through 90° , until the close horizontal wires were in a vertical line and then reading off the Circle when the centre wire was made to bisect the cross of the north collimator at various readings, was $26'' 66 = 1.771$ seconds of time

The intervals of the seven wires from their mean, determined by twelve complete transits of polar stars in 1862, were as follows —

$$+36^s 979 + 24^s 705 + 12^s 351 + 0^s 109 - 12^s 348 - 24^s 697 - 37^s 098$$

The Madras factors for inclination and meridian corrections were found by the following formulæ, the Polar Distance being considered negative for below pole factors

$$\text{Inclination factor} = +0.974 + (9.35435) \cotan \text{ Polar Distance}$$

$$\text{Meridian factor} = +0.226 - (9.98861) \cotan \text{ Polar Distance}$$

The correction for diurnal ^{at} observation at Madras being $0^s 020$, for the centre wire $+ 0^s 109$, and the zero of collimation having been found by taking the mean of the R. A. micrometer readings of the centre wire, when bisecting the crosses in the north and south collimators, after they had been adjusted upon each other, we have for any other reading of the R. A. micrometer

$$\text{Collimation correction} = 1^s 771 (\text{zero of coll} - \text{adopted reading} - 0.073)$$

The reading of coincidence of the centre wire with its reflected image in mercury being taken, we have also,

$$\text{Inclination correction} = 1^s 771 (\text{zero of coll} - \text{coincidence reading})$$

The small altitude of the pole at Madras renders the observation of stars often impossible at their lower transit. Weather permitting, the Meridian-correction was found by a pair of polar stars, but frequently of necessity from one only, combined with a south star, when of course no other use was made of the observation, beyond that of furnishing the correction for the night. The correction was interpolated when not otherwise determinable.

Personal equations were merely used for the convenience of avoiding changes in the local time, for the public signals, as different observers came on duty. The watches usually extended over half a month and the clock errors were never mixed. Upon several occasions, when the instrument was in use only as a Transit, before the Circle arrangements were completed, I observed a number of clock stars intermediate between those of the native assistants, and from comparisons thus obtained, it appeared that they all required negative corrections to their recorded times relatively to my own. The numbers adopted were, for Sashoo $-0^s 75$, for Ragoonatha $-0^s 35$, and for Moottoo-sawmy $-0^s 23$. I afterwards found that similar differences in the habits of bisection existed between the native observers and myself, rendering it equally necessary for each one to determine his own corrections for Index and Run, and causing apparent changes in the corrections certainly not due to the instrument, as may be readily seen in the following tables of adopted "*Instrumental Corrections*", where the numbers enclosed in brackets are the determinations of different observers on the same night.

The Nautical Almanac positions of Standard stars were used entirely for finding the clock corrections, a few being rejected for the purpose, especially Sirius and 61 Cygni. Whatever corrections are due to the Nautical Almanac stars will therefore affect the Madras Right Ascension throughout.

For the determination of the Meridian corrections, as well as with a view to securing data for correction of the assumed latitude, the positions of a number of the brighter stars in the "*Catalogue of 164 Stars within 6° of the North Pole*", given in Vol. XVI of the "*Radcliffe Observations*" were employed. I preferred using the positions given therein to those of the "*Radcliffe Catalogue of Stars for 1845*", as they were entirely my own bringing up, under the supervision of my esteemed chief Mr. Johnson, then Radcliffe

Observer, who was ever anxiously watchful for the results as the work was in progress

A flexure correction of $1''.72 \times \sin \text{Zenith Distance}$, was applied provisionally to the Polar Distances in this volume and I regret not having waited a final value before using such a correction at all

Any investigation of the correction to the assumed latitude before the flexure correction is finally settled would be premature, nor do I think it will be worth while to trifle with partial year to year enquiries now that all the observations for the Catalogue are completed. There is good reason to believe that the latitude requires to be increased (Mr Taylor used $9''.2$ instead of $8''.1$ for his "*General Catalogue for 1835*") and it will be far better to combine all observations taken of each star, above and below pole, when reduced to the epoch 1875, a work which I hope to proceed with as early as other duties will permit, while the next volume is in hand

Instrumental Corrections adopted in 1862

Date	Index	Run in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1862			s	s	s	
May 31	- 35	+ 07	- 0.36	0.00	+ 0.39	
June 2	- 50	+ 08	- 0.32	0.00	+ 0.53	ρ Bootis and Polaris
3	- 45	+ 08	- 0.14	0.00	+ 0.45	ρ Bootis and β R P L
4	- 41	+ 08	- 0.46	0.00	+ 0.19	108 R P L and β Corvi
5	- 38	+ 08	- 0.34	0.00	+ 0.50	108 111 115 R P L and ϵ β Corvi Spica
7	- 48	+ 05	- 0.34	+ 0.13	+ 1.16	111 R P L and α Libræ
9	- 35	+ 05	- 0.32	- 0.08	+ 0.09	
10	- 40	+ 07	- 0.36	- 0.06	+ 0.09	ϵ Urs Min and Antares
12	- 52	+ 05	- 0.42	- 0.02	+ 0.13	111 R P L and Antares

The Inclination correction was adjusted on each of the first five nights on which the instrument was used. It was afterwards determined about noon, on June 7, 9, 12.

The Right Ascension micrometer was set to the corrected reading for no collimation except on June 7 when it was left by mistake so as to require a correction of - 0.14 second.

Instrumental Corrections adopted in 1862

Date	Index	Run in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1862			<i>s</i>	<i>s</i>	<i>s</i>	
June 13	- 46	+ 05	- 0 40	- 0 05	+ 0 11	
16	- 41	+ 03	- 0 38	- 0 06	+ 0 03	
19	- 36	+ 02	- 0 41	- 0 05	- 0 05	111 R P L β Urs Min and β Scorpii
21	- 45	+ 10	- 0 36	- 0 06	+ 0 19	3 Urs Min and β Libræ
24			- 0 23	- 0 05	+ 0 21	111 R P L and α Serpentis
27			- 0 25	- 0 05	+ 0 18	
30			- 0 38	- 0 05	+ 0 13	
July 3	+ 03	00	- 0 35	+ 0 02	+ 0 11	ϵ Urs Min and θ Ophiuchi
4	+ 03	- 02	- 0 34	+ 0 02	+ 0 13	δ Urs Min and β^1 Scorpii
8	+ 01	00	- 0 39	+ 0 02	+ 0 07	
12	- 11	+ 02	- 0 35	- 0 05	+ 0 01	δ Urs Min and ρ Capricorni
15	+ 35	+ 01	- 0 33	- 0 03	+ 0 04	ϵ Urs Min and β^1 Scorpii
16	+ 39	+ 01	- 0 36	- 0 03	+ 0 05	
18	+ 41	00	- 0 40	- 0 02	+ 0 04	
19	+ 38	00	- 0 39	- 0 02	+ 0 03	
22	+ 26	00	- 0 33	- 0 02	0 00	
23	+ 27	+ 05	- 0 22	- 0 03	- 0 02	ϵ Urs Min and β^1 Scorpii
24	+ 27	+ 05	- 0 18	- 0 01	+ 0 04	
25	+ 30	+ 03	- 0 20	- 0 01	+ 0 09	ϵ Urs Min and β^1 Scorpii
26	+ 24	- 01	- 0 28	- 0 01	+ 0 06	ϵ Urs Min and β^1 Scorpii
28	+ 24	- 01	- 0 56	- 0 07	+ 0 08	δ Urs Min and β^1 Scorpii
July 29	+ 25	- 03	- 0 53	- 0 07	+ 0 12	131 R P L and δ Aquilæ
30	+ 27	+ 02	- 0 63	- 0 07	+ 0 12	
31	+ 24	00	- 0 63	- 0 07	+ 0 12	
Aug 1	+ 22	00	- 0 12	- 0 07	+ 0 05	δ Urs Min and α Capricorni
2	+ 24	- 01	- 0 10	- 0 07	+ 0 03	δ Urs Min and α Ophiuchi

The microscopes were removed on June 23 for a few days during the fastening of a conical stone ring to the western pier between them and the lamp

The microscopes were re adjusted throughout on July 3 and 15

The Clock rate was diminished 0.5 second after the observations on July 31

The Inclination correction was determined usually about noon on June 14 17 20 July 3 10 15 21 28 and August 4

The Right Ascension micrometer was set to the corrected reading for no collimation except on June 19 when by a careless mistake it was left seven revolutions wrong and a correction of - 12.40 seconds had to be used

Instrumental Corrections adopted in 1862

Date	Index	Run in s	Clock Rate	Inclina- tion	Meridian	Determining Stars
1862			s	s	s	
Aug 5	+19	+02	-007	-005	+003	
9	+22	+01	-015	-005	+003	
12	+35	00	-007	-012	+003	
13	+37	-03	-002	-012	+003	
14	+23	-03	-010	-012	+009	λ Urs Min and δ Sagittarii
16	+33	+01	-026	+001	+009	
18	+32	00	-033	+001	+009	
20	+42	00	-052	+001	+009	δ Urs Min and Altair
21	+32	-02	-042	+001	+008	δ Urs Min and β Aquilæ
22	+31	-05	-028	+001	+017	131 R P L and δ Aquilæ
23	+32	-05	-028	+001	+016	150 R P L and γ Aquilæ
25	+27	-05	-032	-009	+013	
26	+27	-01	-039	-009	+012	
27	+28	-03	-035	-009	+010	
28	+05	+04	-027	-009	+009	
Sep 1	-00	00	-033	-022	+003	
3	+08	-01	-036	-022	000	
5	{ +06 +12 }	00	-019	-022	-003	γ Aquilæ and δ Cephei
6	+07	+04	-017	-026	+002	150 and 72 R P L
8	+15	+02	-030	-023	+002	
9	+18	+02	-021	-023	+002	
10	+11	+01	-024	-023	+001	12 and 89 R P L
11	+07	+02	-038	-023	+001	
12	+02	+01	-039	-023	+001	
13	+09	+01	-040	-023	+001	
15	+09	+01	-032	-021	+001	
16	+04	00	-035	-022	+001	

The two brass axes which support microscopes B and C were removed for necessary alterations and repair of a broken screw on August 25.

The Inclination correction was determined, usually about noon on August 11, 16, 25, 29 September 1, 2, 4, 8, 10.

The Right Ascension micrometer was set to the corrected reading, for no collimation except on September 1 when it was slightly misplaced leaving a correction of +002 second, and also on September 3 and 5, when the required correction was +001 second.

Instrumental Corrections adopted in 1862

Date	Index	Pun in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1862			s	s	s	
Sep 17	+06	+02	-023	-022	+002	
18	00	+02	-012	-022	+002	
20	00	+02	-032	-022	+002	
22	+18	+02	-001	-031	+002	151 R 1 L and 12 Ceti
23	+17	00	+002	-022	+002	
24	+17	+03	-096	-022	+002	
26	+28	+01	-073	-026	+003	
27	+23	-03	-079	-026	+003	
29	+25	-03	-047	-026	+003	150 R P L and β Aquarii
30	+29	+08	-081	-026	+002	150 158 R P I and ρ Capricorni
Oct 1	+08	+02	-080	-031	+003	
2	+12	+03	-076	-031	+004	150 and 72 I P L
3	+16	-02	-076	-031	+003	
4	+11	00	+027	-031	+003	
6	+03	+05	+014	-031	-001	150 R P L and ϵ Piscium
7	+08	-04	+022	-031	+003	150 and 70 R P L
8	+08	00	+020	-027	+003	
9	+06	-02	+012	-027	+003	
10	+22	-02	+024	-027	+003	
11	+16	+01	+027	+011	-007	150 R P L and γ Pegasi
13	+15	+01	+017	+011	-003	150 and 72 R P I
14	+17	-01	+020	+011	-004	150 P P L and α Aquarii
15	+18	+01	+026	+011	+001	150 and 72 R P L
16	+16	00	+017	+010	-005	150 and 72 R P L
17	+20	+04	+012	+010	-006	
18	+12	+03	+013	+010	-007	
20	+17	-03	+017	+010	-008	
21	+12	00	+017	+010	-009	Polaris and δ Sculptoris

The Clock rate was diminished by 1 second after the observations on October 3

The Inclination correction was determined usually about noon on September 24 26 October 5 11 16

It was adjusted on October 4

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

Instrumental Corrections adopted in 1862

Date	Index	Run in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1862			s	s	s	
Oct 23	+11	-01	+011	+013	-007	Polaris and δ Sculptoris
24	+10	-01	+011	+013	-007	
25	+03	+01	-001	+013	-006	
27	+08	+02	-035	+013	-005	
28	-05	+02	-019	+013	-005	158 and 79 R P L
29			-001	+013	-002	
31	+21	+04	+001	+013	+004	26 P I I and β Ceti
Nov 1	+31	+06	+005	+009	+009	ω Piscium and 72 R P L
3	+33	+05	+006	+009	+011	153 and 72 R P L
4	+32	+01	+008	+009	+014	153 and 93 R P L
5	+30	+01	+002	+009	+012	153 and 72 R P L
6	+31	+06	+007	+009	+017	153 and 72 R P I
7	+24	-02	+000	+009	+007	26 and 89 R P I
8	+17	00	-011	+009	+013	26 and 103 R P I
11	+06	+05	-003	+009	+021	153 and 72 R I L
12	+14	+05	+003	+009	+012	150 and γ Piscium
13	+19	+01	+003	+006	+016	150 and 72 R P I
14	+13	-03	-001	+006	+009	Polaris and θ Aquarii
15	00	-03	-004	+006	-001	26 and 92 R P I
20	+13	-03	-028	+013	+009	Polaris and β Ceti
22	+31	-03	-024	+013	+011	
24	+45	-03	-012	+013	+012	
25	+7	-01	-013	+013	+013	Polaris and γ Ceti
26	+31	-04	-018	+013	+013	
28	+44	-04	-018	+014	+013	12 R P I and θ Ceti
29	+46	-03	-008	+014	+014	
Dec 1	+21	-03	-010	+017	+018	33 and 49 R P I
2	+22	-03	-017	+017	+010	33 and 114 R P L

The Inclination correction was determined usually about noon, on October 23 November 1, 14 17, 29 and December 1

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

Instrumental Corrections adopted in 1862

Date	Index	Run in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1862			s	s	s	
Dec 3	+18	+04	-017	+017	+011	Polaris and ν Piscum
4	+19	+03	-023	+017	+018	α Arietis and ϵ Urs Min
5	+11	+03	-028	+017	+014	10 R P L and β Ceti
6	+08	+02	-033	+017	+016	
8	-01	+02	-039	+017	+020	40 R P L and ϵ Urs Min
9	-01	+04	-034	+017	+021	43 R P L and ϵ Urs Min
10	+02	+04	-021	+017	+015	26 R P L and γ Ceti
11	+06	+01	-025	+017	+018	Polaris and α Arietis
20			-037	+012	+018	
25			-031	+012	+019	
29			-030	+012	+020	33 R P L and 67 Ceti
31			-037	+004	+022	33 R P L and 67 Ceti

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1863			s	s	s	
Jan 3			-032	+014	+018	
5	+25	00	-030	+014	+015	
6	+08	+02	-023	+014	+013	43 R P L and γ^1 Eridani
7	+04	+01	-027	+014	+008	Procyon and δ Urs Min
8	+11	+02	-035	+014	+016	33 R P L and γ^1 Eridani
9	+11	-04	-060	+014	+016	33 R P L and δ Urs Min
10	+10	-04	-076	+014	+011	33 R P L and δ Urs Min
12			-037	+014	+010	
14	-13	+03	-034	+016	+008	35 R P L and δ Orionis
15	-15	+03	-038	+016	+031	34 R P L and α^1 Eridani

The Inclination correction was determined about noon on December 15 16 30 in 1862 and also on January 15 1863

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe

Instrumental Corrections adopted in 1863

Date	Index	Run in s	Clock Rate	Inclina- tion	Meridian	Determining Stars
1863			s	s	s	
Jan 16	$\begin{Bmatrix} -13 \\ -09 \end{Bmatrix}$	$\begin{Bmatrix} +01 \\ -01 \end{Bmatrix}$	-0 45	+0 15	+0 24	33 R P L and Regel
17	-11	+0 4	-0 40	+0 15	+0 21	
19	-12	+0 3	-0 21	+0 15	+0 15	51 Cephei and δ Urs Min
20	-12	+0 2	-0 22	+0 15	+0 14	51 Cephei and δ Urs Min
21	-21	+0 2	-0 18	+0 16	+0 10	
22	-21	00	-0 20	+0 16	+0 07	51 Cephei and α Columbae
23	00	+0 1	-0 30	+0 17	+0 06	
24	+0 6	00	-0 31	+0 17	+0 06	51 Cephei and 131 R P L
29	+20	+0 1	-0 24	+0 19	+0 06	51 Cephei and Regel
30	+0 0	+0 3	-0 24	+0 20	+0 04	
Feb 2	+25	$\begin{Bmatrix} +04 \\ -03 \end{Bmatrix}$	-0 46	+0 22	-0 02	70 and 150 R P L
3	+20	+0 1	-0 42	+0 22	+0 05	51 Cephei and δ Urs Min
4	+23	+0 2	-0 32	+0 22	+0 10	Pollux and λ Urs Min
5	+11	+0 1	-0 27	+0 22	+0 04	77 R P L and ϵ Hydra
6	+12	00	-0 23	+0 22	+0 13	ϵ Leonis and 150 R P L
9	+12	+0 1	-0 08	+0 22	+0 05	51 Cephei and δ Urs Min
10	+13	00	-0 11	+0 22	+0 04	
11	+07	00	-0 15	+0 22	+0 03	51 Cephei and δ Urs Min
12	+10	00	-0 09	+0 23	+0 02	
13	+14	00	-0 08	+0 23	000	Castor and δ Urs Min
14	+10	+0 3	-0 11	+0 23	000	
16	+11	+0 2	-0 14	+0 24	-0 01	
17	+05	+0 3	-0 11	+0 24	-0 01	51 Cephei and δ Urs Min
18	+03	+0 1	-0 23	+0 24	-0 01	
19			-0 31	+0 24	-0 01	
21	+05	+0 1	-0 33	+0 25	-0 01	

The Inclination correction was determined between noon and 3 P M on January 16 31 February 2 5 1 }
 The Right Ascension micrometer was set to the corrected reading for no collimation except on January
 16 when the observer during the second part of the night slightly misplaced it leaving a correc-
 tion of +0 01 second

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1863			s	s	s	
Feb 23	-06	+01	-039	+025	-001	51 Cephei and γ Orionis
24	-15	00	-036	+024	000	
25	-12	+01	-035	+024	+002	Pollux and λ Urs Min
26	-11	+01	-031	+023	+003	
27	-12	+02	-017	+023	+005	60 R P L and λ Urs Min
28	-13	+02	-015	+022	+002	
Mar 2	$\left\{ \begin{array}{l} -03 \\ -02 \\ +03 \end{array} \right\}$	$\left\{ \begin{array}{l} -01 \\ +09 \\ -01 \end{array} \right\}$	-022	+021	-003	51 Cephei and δ Urs Min
3	-05	+01	-018	+022	000	70 R P L and λ Urs Min
4	-10	-03	-024	+022	000	Procyon and λ Urs Min
5	-07	+04	-022	+023	-004	60 R P L and λ Urs Min
6	-13	+03	-021	+024	-005	
7	-13	+02	-036	+026	-006	70 R P L and Spica
9	-10	+03	-036	+028	-004	60 and 150 P P I
11	-04	+02	-018	+031	-009	
12	-06	+01	-032	+032	-011	72 and 131 R P L
13	-08	+01	-032	+032	-011	
14	-07	-03	+030	+032	-011	
15			+030	+027	-011	
16	-03	+03	+009	+032	-010	
17	-04	00	-005	+032	-009	60 R P L and α Hydræ
18	00	-03	+006	+032	-011	60 and 150 R P L
19	-01	-01	-021	+032	-011	
20	-08	00	-037	+033	-013	89 and 153 R P L
25	-08	+02	+003	+033	-013	
24	-10	+02	+005	+033	-013	89 and 153 R P L
25	-11	+02	-002	+033	-014	
26	-10	+02	-009	+033	-016	89 and 153 R P I

The Clock tripped two seconds in winding on March 14th Stopped it and adjusted the pendulum
The Inclination correction was determined between noon and 5 P M on February 23 March 2 4 12 20
The Right Ascension micrometer was set to the corrected reading for no collimation before beginning
to observe

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1863			s	s	s	
Mar 27	-16	+03	-010	+032	-015	
28	-10	+03	-013	+032	-014	89 and 158 R P L
30	-10	+02	-020	+032	-014	
31	-05	+02	-012	+032	-013	89 and 158 R P L
Apl 1	{ -09 00 -03 }	{ +03 +05 +03 }	-007	+033	-014	3 Virginis and Polaris
1			000	+033	-018	
6			-001	+033	-019	
8	-12	-01	-007	-004	-021	70 R P L and Polaris
9	-11	+01	-012	-001	-019	
10	-21	+03	-011	+002	-017	70 R P L and Polaris
11	-17	+04	-007	+002	-018	
13	-10	-02	-017	+002	-019	70 R P L and Polaris
14	-10	-03	-014	+002	-017	
15	-17	-02	-022	+003	-015	70 R P L and Polaris
16	-12	+03	-020	+004	-015	
17	-13	-02	-016	+004	-016	1 Leonis and Polaris
18	-13	+03	-014	+005	-015	
23	-04	+03	-030	+006	-012	89 and 158 R P L
27	+08	-06	-024	+007	-008	89 R P L and 8 Crateris
28	{ +01 +22 }	{ -06 +05 }	-005	+007	-005	Regulus and Polaris
29	+01	-06	-001	+007	-008	
30	+06	-06	-017	+008	-011	72 and 150 R P L
May 1	{ -01 +18 }	{ -06 +05 }	-017	+008	-014	
2	{ +07 +17 }	{ -06 +05 }	-013	+008	-016	89 and 158 R P L
4	00	+04	-044	+007	-014	

The eye end of the telescope was removed on April 7 to have the polar distance micrometer repaired by Mr F Doderet. The collimators and the inclination correction were adjusted.
 The inclination correction was determined between 2 and 7 P M on March 31, April 1, 7 10 15, 16 and May 1.
 The Right Ascension micrometer was set to the corrected reading for no collimation before beginning to observe.

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1863			s	s	s	
May 5	+06	+04	-030	+007	-013	
6	-01	+02	-017	+007	-012	89 R P L and δ Crateris
7	-01	-01	-027	+007	-014	
8	+04	00	-021	+007	-015	
9	-04	00	-014	+006	-017	111 R P L and Polaris
11	+06	-01	-018	+006	-018	
12	+12	00	-021	+006	-018	
15	00	-03	-013	+005	-020	
16	+34	+02	-016	+004	-020	
18	+40	+02	-029	+003	-021	γ Virginis and Polaris
19	+35	+02	-047	+003	-021	108 R P L and Polaris
20	+30	+02	-044	+004	-020	
21	+29	+02	-027	+004	-019	
22	+29	+02	-031	+005	-018	
23	+32	+02	-029	+005	-016	
26	+29	+02	-014	+006	-013	99 R P L and Polaris
27	+28	+02	-020	+007	-012	
28	+22	+02	-028	+007	-012	ϵ Bootis and 35 R P I
29	+25	+02	-032	+008	-016	
30	+26	+02	-031	+008	-019	β and γ Uis Min and β^1 Scorpii
June 1	+20	+02	-018	+009	-006	99 R P L and β Corvi
2	+24	+02	-018	+009	-006	ρ Bootis and Polaris
3	+24	+02	-016	+009	-011	
4	+15	+02	-015	+009	-019	ϵ Ur Min and ρ Capricorni
5	+19	+02	-022	+008	-014	
9	+25	+72	+011	+008	-006	ϵ Uis Min and Polaris 10 R P L
10	+16	+02	+013	+008	-006	99 R P L and Polaris

The microscopes were adjusted on May 16

The Inclination correction was determined between 2 and 4 P M on May 16 18 and June 1

The Right Ascension micrometer was set to the corrected reading or no collimation before beginning to observe

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclina- tion	Meridian	Determining Stars
1863			s	s	s	
June 11	+16	+02	+004	+008	-006	3 Urs Min and Polaris
18	+20	+02	-012	+007	-009	
20	+12	+02	-012	+006	-010	
23	+13	+02	-006	+005	-011	
26	+12	+02	-011	+004	-013	
27	+06	+02	-019	+003	-013	ϵ Urs Min and β Libræ
29	+18	+02	-027	+003	-003	δ Urs Min and δ Cephei
30	+13	+02	-006	+002	-005	116 R P L ϵ Urs Min and κ Ophiuchi
July 1	+05	-02	-002	+002	-005	
2	+04	-02	-009	+003	000	δ Urs Min and α^2 Capricorni
3	+01	-02	-004	+004	000	
10	+08	-02	-003	+009	000	131 R P L and α^2 Libræ
11	+10	-02	-006	+010	000	
13	+12	-02	+007	+012	000	
14	+09	00	+007	+012	000	
16	+26	00	+017	+013	+001	
18	+28	00	+009	+011	+001	
20	+31	00	-016	+009	+001	ϵ δ Urs Min and θ Ophiuchi
23	+38	00	-011	+006	000	
28	+25	00	-011	+002	-002	
29	+28	00	-010	+001	-003	ϵ Urs Min and α Pavonis
31	+27	00	-005	-001	-003	δ Urs Min and 72 R P L
Aug 3	+20	-02	+004	-004	-004	
7	+19	-02	-003	-007	-005	
12	+17	-02	-019	-010	-006	131 R P I and μ^1 Sagittarii
15	+19	-02	-011	-011	-005	
18	+23	+04	-005	-011	-004	150 and 72 R P L
22	+29	+04	-002	-005	-010	δ Urs Min and h^2 Sagittarii

The Inclination correction was determined between 2 and 4 P M, on June 16 July 1, 16, August 1 10 17 22

The Right Ascension micrometer was set to the corrected reading for no collimation before beginning, to observe

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
1863			s	s	s	s	
Aug 24	+ 0 5	+ 0 4	+ 0 03	- 0 06	0 00	- 0 03	α Uis Min 1311 P L and 60 P I I
26	+ 2 3	+ 0 4	+ 0 06	- 0 07	0 00	- 0 01	
27	+ 2 4	+ 0 4	+ 0 09	- 0 08	0 00	- 0 04	10 I I L α Uis Min and ρ Capricorn
28	+ 2 0	- 0 2	- 0 01	- 0 08	0 00	0 00	
29	+ 2 4	+ 0 1	- 0 14	- 0 09	0 00	+ 0 03	I claus and 59 R I I
31	+ 2 0	+ 0 4	- 0 10	- 0 10	0 00	+ 0 01	
Sep 4	+ 2 0	- 0 2	- 0 16	- 0 10	0 00	- 0 04	
8	+ 2 2	- 0 2	- 0 34	- 0 10	0 00	- 0 08	
12	+ 2 1	- 0 2	- 0 05	- 0 11	0 00	- 0 13	α Uis Min and β Aquile
14	+ 1 9	- 0 2	- 0 25	- 0 11	0 00	- 0 03	131 and 60 R I I
16	+ 1 9	- 0 2	- 0 26	- 0 11	0 00	- 0 03	
18	+ 2 1	0 0	- 0 20	- 0 11	0 00	- 0 01	
23	+ 2 4	0 0	- 0 14	- 0 11	0 00	- 0 00	
25	+ 1 6	0 0	- 0 12	- 0 11	0 00	- 0 05	100 151 R P L and η Aquarii
26	+ 1 6	0 0	- 0 19	- 0 16	- 0 03	- 0 00	
28	+ 1 7	0 0	- 0 29	- 0 13	0 00	- 0 06	108 and 89 P P I
30	+ 2 1	0 0	- 0 31	- 0 09	+ 0 00	- 0 06	
Oct 1	+ 1 2	- 0 2	- 0 17	- 0 03	+ 0 06	- 0 05	
2	+ 1 1	- 0 2	- 0 13	+ 0 01	0 00	- 0 00	
3	+ 1 2	- 0 2	- 0 26	- 0 08	- 0 02	- 0 00	
5	+ 1 0	- 0 2	- 0 15	- 0 06	- 0 01	- 0 04	
6	+ 0 6	- 0 2	- 0 09	- 0 07	- 0 02	- 0 04	143 and 60 R I I
7	+ 0 3	- 0 2	- 0 11	- 0 12	- 0 03	- 0 03	
8	+ 0 5	- 0 0	- 0 17	- 0 11	- 0 03	- 0 03	10 P P I γ 4 Cephei and ρ Capricorn

The Inclination correction was determined between 2 and 4 p m on August 31 Sep 16 24
The Right Ascension micrometer was set to the corrected reading for no collimation before beginning
to observe up to September 25
The Inclination and Collimation corrections were determined each night during observing hours
by the Assistant on duty from September 26 till the Meridian correction also whenever polar stars
were available

Instrumental Corrections adopted in 1865

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
186			s	s	s	s	
Oct 5	+10	-02	-011	-010	-002	000	
10	+06	-02	-008	-007	-002	002	150 and 70 R P L
13	+01	-02	+004	-001	000	000	
11	+10	-02	-012	-017	-006	000	
16	+12	+02	-031	-019	-005	000	150 P P L and Fomalhaut
17	+13	+02	-023	-023	-005	+003	158 and 99 R P L
23	+50	+02	-026	-031	-005	+016	150 and 69 R P L
24	+53	+02	-026	-025	-002	+016	
26	+87	+02	-031	-023	-001	+016	Polaris and δ Sculptoris
27	+51	+02	-032	-018	-001	+016	Polaris and 108 R P L
28	+80	+02	-028	-016	-002	+016	
29	+67	+02	-019	-012	-001	+015	
30	+63	+02	-059	-014	+001	+015	
31	+60	+02	-011	-016	-002	+014	155 and 89 R P L
Nov 2	+61	-02	028	-012	+002	+022	150 and 72 R P L
3	+18	-02	-013	-020	-002	+027	
4	+18	-02	-011	-011	+004	+033	150 and 89 R P L
5	+11	-02	-050	-017	-001	+023	150 and 92 R P L
6	+52	-02	-059	-015	+004	+021	
7	+28	-02	-011	-017	+005	+020	
8	+25	-02	-033	-019	-002	+017	155 and 108 R P L
11	+29	-02	-039	-018	-006	+011	
13	+25	02	-020	-013	-001	+011	
14	+28	-02	-016	-020	-006	+010	26 and 89 R P L
15	+22	+02	-029	-017	-003	+003	Polaris and Achernar
20	+34	+02	-011	-023	-010	+004	
21	+26	+02	-044	-018	-003	+005	35 and 116 P P L
23	+25	+02	-036	-024	-005	+012	
24	+30	+02	-044	-020	-003	+015	

Instrumental Corrections adopted in 1863

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Star
1863			s	s	s	s	
Nov 25	+21	+02	-0.42	-0.17	-0.03	+0.19	26 34 R P L and γ^1 Iridani
26	+20	+02	-0.36	-0.19	-0.01	+0.15	26 34 and 116 R P L
27	+16	+02	-0.41	-0.22	0.00	+0.11	
28	+16	+02	-0.43	-0.20	+0.01	+0.07	
30	+14	+02	-0.49	-0.27	-0.06	0.00	Pol 118 and Achernar
Dec 7	+60	-02	-0.72	-0.06	-0.02	+0.33	33 and 108 R P L
8	+62	-02	-0.55	-0.05	+0.01	+0.32	40 and 67 R P L
9	+61	-02	-0.48	-0.11	-0.04	+0.30	
10	+50	-02	-0.50	-0.15	+0.03	+0.27	
11	+51	-02	-0.40	-0.18	+0.01	+0.25	35 R P L and 67 Ceti
12	+38	-02	-0.39	-0.22	+0.01	+0.21	Polaris and 111 R P I
14	+48	-02	-0.43	-0.19	+0.01	+0.19	
15	+35	-02	-0.49	-0.23	-0.02	+0.18	33 and 114 R P L
16	+32	+02	-0.54	-0.23	-0.05	+0.13	
17	+49	+02	-0.52	-0.27	-0.06	+0.08	Polaris and 111 R P L
18	+35	+02	-0.56	-0.28	-0.06	+0.10	
19	+29	+02	-0.58	-0.28	-0.05	+0.13	
21	+32	+02	-0.62	-0.21	-0.02	+0.18	
22	+28	+02	-1.34	-0.22	-0.02	+0.20	Polaris and Achernar
23	+26	+02	-1.58	-0.14	+0.02	+0.17	35 and 111 R P L
24	+29	+02	-0.90	-0.20	-0.01	+0.17	
25	+25	+02	-0.66	-0.21	-0.02	+0.18	
26	+23	+02	-0.63	-0.18	-0.01	+0.17	
29	+27	-02	-0.57	-0.18	-0.01	+0.16	
30	+19	-02	-0.62	-0.21	-0.01	+0.16	
31	+09	-02	-0.62	-0.17	+0.02	+0.15	

+0.23

Sudden and considerable changes in the Index Inclination and Meridian corrections usually occur after heavy rain instances of which may be seen after October 14th and November 30th in the preceding table. Buildings resting upon massive foundations like the Observatory are upheaved as a block and slightly tilted slowly recovering their positions as the rain leaves the sandy soil by drainage and evaporation. Where the foundations are less solid cracked walls and too frequent collapses are the familiar results of a heavy downpour, as may be noticed after every rainy season in Madras.

INSTRUMENTAL CORRELATIONS

XXXIII

Instrumental Corrections adopted in 1864

Date	Index	Run in s	Clock rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
1861			s	s	s	s	
Jan 1	+ 10	- 01	- 0 59	- 0 17	+ 0 01	+ 0 15	
2	+ 04	01	- 0 59	- 0 16	+ 0 04	+ 0 15	Polaris and θ^1 Ceti
4	+ 06	- 01	- 0 13	- 0 23	- 0 04	+ 0 08	34 and 116 R P L
5	+ 01	- 01	- 0 41	- 0 21	- 0 04	+ 0 06	
6	+ 02	- 01	- 0 57	- 0 23	- 0 04	0 00	51 Cephei and δ Urs Min
7	- 06	- 01	- 0 62	- 0 16	- 0 01	+ 0 01	
11	- 11	- 01	- 0 61	- 0 21	- 0 03	+ 0 07	51 Cephei and δ Urs Min
12	- 23	- 01	- 0 63	- 0 18	+ 0 02	+ 0 09	
15	- 15	- 01	- 0 51	- 0 14	+ 0 05	+ 0 14	51 Cephei and δ Urs Min
16	- 27	- 01	- 0 54	- 0 17	+ 0 03	+ 0 10	
18	- 17	- 01	- 0 06	- 0 18	- 0 01	+ 0 02	
19	- 17	- 01	- 0 06	- 0 21	- 0 04	- 0 02	51 Cephei and δ Urs Min
20	- 22	- 01	- 0 08	- 0 19	- 0 01	+ 0 03	
21	- 25	- 01	- 0 06	- 0 18	0 00	+ 0 08	
22	- 30	- 01	+ 0 05	- 0 21	- 0 02	+ 0 12	51 Cephei and ϵ Urs Min
23	- 36	- 01	+ 0 02	- 0 24	- 0 05	+ 0 11	
25	29	00	- 0 02	- 0 36	- 0 12	+ 0 10	
26	- 26	00	- 0 05	- 0 35	- 0 08	+ 0 09	6 Cancri and λ Urs Min
27	- 29	00	- 0 03	- 0 36	- 0 09	- 0 04	
28	- 28	00	+ 0 02	- 0 39	- 0 10	- 0 17	51 Cephei and 111 R P L
29	- 28	00	- 0 06	- 0 43	- 0 15	- 0 14	
30	- 24	00	- 0 02	- 0 36	- 0 03	- 0 12	
Feb 1	- 28	00	+ 0 14	- 0 31	- 0 04	- 0 07	43 R P L and δ Urs Min
2	- 29	00	+ 0 08	- 0 31	- 0 05	- 0 05	
3	- 30	- 01	+ 0 14	- 0 22	0 00	- 0 03	α Orionis and δ Urs Min
4	- 27	00	+ 0 26	- 0 28	- 0 04	- 0 05	
5	- 28	00	+ 0 21	- 0 33	- 0 10	- 0 06	
8	- 34	00	+ 0 12	- 0 27	- 0 06	- 0 11	51 Cephei and α Columbae
9	- 33	- 01	+ 0 03	- 0 25	- 0 06	- 0 03	51 Cephei and ϵ Urs Min
10	- 33	- 01	+ 0 07	- 0 21	- 0 03	- 0 05	

The transit clock rate was changed 0.5 second after the observation on January 16th

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
1864			s	s	s	s	
Feb 11	-29	-01	000	-021	-006	-008	40 R 1 L and δ Urs Min
12	-26	-01	-003	-024	-004	-006	
13	-27	-01	+009	-027	-005	-004	
15	-21	00	+001	-022	-001	+001	49 R P L and δ Urs Min
16	-25	+01	-003	-026	-003	-006	51 Cephei and δ Urs Min
17	-25	+01	+007	-019	-001	-009	
18	-26	+01	+028	-021	-003	-011	
19	-22	+01	+004	-018	-007	-014	51 Cephei and λ Urs Min
21			-026	-010	-003	-012	
22	-27	+01	+007	-006	+001	-011	
23	-24	+01	-012	-021	-006	-011	
24	-21	+01	+001	-017	-003	-010	
25	-27	+01	+013	-015	-001	-009	
26	-22	+01	+022	-013	000	-008	51 Cephei and λ Urs Min
29	-17	00	+026	-013	-002	-012	
Mar 1	-13	00	+032	-009	-001	-014	70 and 150 R P L
2	-21	00	+025	-018	-007	-016	
3	-23	00	+022	-011	-002	-019	51 Cephei and 24 Cephei
4	-21	00	+027	-016	-006	-018	
5	-24	00	+021	-021	-007	-017	51 Cephei and 150 R P L
7	-18	00	+032	-010	-001	-018	
8	-20	00	+032	-020	-006	-019	
9	-19	00	+025	-022	-007	-020	49 and 150 R P L
10	-22	00	+014	-023	-007	-019	
11	-18	00	+007	-021	-004	-018	
14	-20	00	+021	-020	-004	-014	70 and 150 R P L
15	-19	00	+015	-017	-002	-010	
16	-21	+01	+017	-009	+003	-006	60 and 143 R P L
17	-15	+01	+030	-014	+002	-011	
18	-18	+01	+033	-012	+002	-015	

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
1864			s	s	s	s	
Mar 19	-14	+01	+029	-010	000	-020	60 R P L and 24 Cephei
21	-19	+01	+024	-007	+001	-017	
22	-20	+01	+025	-007	+003	-016	
23	-15	+01	+024	-010	-001	-015	60 and 158 R P L
30	-10	+01	+025	-005	000	-017	
31	-08	+01	+033	-005	+002	-017	72 and 158 R P L
Apl 1	-06	-03	+036	-002	-005	-018	
2	-09	-03	+024	-008	-003	-020	70 R P L and Polaris
4	-11	-03	-006	-012	-003	-021	
5	-05	-03	-006	-010	-003	-021	
6	-14	-03	-010	-009	-003	-021	89 R P L and Polaris
7	-03	-03	-030	-009	-003	-021	
8	-08	-03	-017	-007	-002	-022	
9	-05	-03	-021	-007	-002	-022	
11			-002	-007	-002	-023	
12	-04	-03	+011	-006	-002	-023	60 and 150 R P L
13	-07	-03	-003	-007	-003	-023	
14	-01	-03	+001	-007	000	-022	
15	+01	-03	-006	-005	+001	-022	72 and 150 R P L
16	-04	+01	-013	-007	000	-019	72 R P L and Polaris
18	-05	+01	+009	-006	+002	-021	
19	-09	+01	+017	-005	+003	-022	
20	-04	+01	+009	-010	-002	-023	
21	-07	+01	+003	-009	000	-024	γ Uis Maj and Polaris
22	00	+01	+014	-005	+002	-024	
23	-04	+01	+017	-004	+002	-025	
25	-02	+01	+015	-003	+001	-026	
26	00	+01	+011	-005	-001	-026	101 R P L and Polaris
27	+02	+01	+007	-003	+001	-024	
28	-04	+01	-006	-003	000	-023	

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
1864			s	s	s	s	
Apl 29	00	+01	-020	-004	000	-021	γ Urs Maj and Polaris
30	+04	+01	-014	+002	+004	-019	
May 2	+08	+01	+006	-001	+005	-019	101 R I L and Polaris
3	+09	+01	+008	-003	000	-019	
4	+04	+01	+006	-001	+002	-019	γ Urs Maj and Polaris
5	+06	+01	-005	+002	+005	-019	
6	00	+01	-020	+003	+006	-020	80 and 12 R P L
7	+05	+01	-024	+003	+003	-021	
10	+05	-01	-008	+002	-001	-023	90 and 158 R P L
12	+06	-01	-013	+001	+002	-024	
18	+07	-01	-005	+004	+007	-023	111 and 14 R I L
14	+02	-01	000	-002	-002	-023	
16	+08	-01	-057	000	-001	-022	γ Urs Maj and Polaris
17	+10	-01	-051	+004	+002	-021	
18	+08	-01	-016	000	+001	-024	3 Urs Min and Polaris
19	+06	-01	-009	-001	000	-023	
20	+12	-01	-008	-002	-001	-024	3 Urs Min and 33 R P L
21	-05	-01	-010	+002	+002	-024	
23	+13	00	-038	-003	-001	-028	3 Urs Min and Polaris
24	+17	00	-073	-001	000	-026	
25	+13	00	-073	+001	-002	-021	3 Urs Min and Polaris
26	+16	00	-046	000	000	-021	
28	+12	00	-027	-003	-001	-017	3 Urs Min and Polaris
30	+08	00	-002	000	+003	-020	
31	+09	00	-001	-002	-002	-021	3 Urs Min and 33 R P L
June 2	+13	00	-019	-004	000	-023	
3	+20	00	-020	000	-002	-025	3 Urs Min and 33 R P L
4	+17	00	-019	000	-002	-026	
7	+14	00	-005	+002	000	-023	

-023

-024

024

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
1864			s	s	s	s	
June 8	+ 16	00	- 0 03	+ 0 01	0 00	- 0 22	η Bootis and Polaris
10	+ 13	- 01	- 0 09	- 0 01	- 0 04	- 0 20	
14	+ 10	- 01	- 0 19	+ 0 04	- 0 01	- 0 16	
15	+ 05	+ 01	- 0 13	0 00	- 0 01	- 0 20	
16	+ 11	+ 01	- 0 10	+ 0 01	- 0 02	- 0 23	
17	+ 10	+ 01	- 0 08	+ 0 02	- 0 01	- 0 23	
18	+ 09	+ 01	- 0 15	+ 0 07	+ 0 02	- 0 23	
21	+ 09	+ 01	- 0 25	+ 0 05	- 0 02	- 0 22	
24	+ 04	- 02	- 0 22	+ 0 06	- 0 01	- 0 21	
27	00	- 02	+ 0 03	+ 0 07	- 0 01	- 0 20	
28	- 04	- 02	- 0 06	+ 0 06	- 0 05	- 0 19	ε Uis Min and 40 R P I
29	+ 07	- 02	- 0 19	+ 0 06	- 0 03	- 0 19	
30	+ 02	- 02	- 0 08	+ 0 07	- 0 04	- 0 19	
July 1	+ 03	- 02	- 0 02	+ 0 04	- 0 07	- 0 20	111 R P L and Antares
2	+ 05	- 02	- 0 05	+ 0 04	- 0 06	- 0 20	
4	+ 07	- 02	- 0 10	+ 0 04	- 0 04	- 0 21	
7	- 01	+ 01	0 00	+ 0 07	+ 0 02	- 0 23	
8	+ 06	- 02	+ 0 04	+ 0 07	- 0 02	- 0 23	
9	- 02	- 02	0 00	+ 0 03	- 0 04	- 0 24	
11	+ 02	- 02	- 0 12	+ 0 04	- 0 02	- 0 25	
18	- 06	00	- 0 11	- 0 02	- 0 01	- 0 23	
21	- 02	00	+ 0 02	+ 0 04	0 00	- 0 27	
22	- 06	00	+ 0 03	+ 0 07	+ 0 01	- 0 26	ε Uis Min and 51 Cephe
23	- 05	00	+ 0 02	+ 0 10	+ 0 03	- 0 26	
25	- 03	00	+ 0 01	+ 0 03	+ 0 04	- 0 25	
26	- 16	00	+ 0 01	+ 0 15	+ 0 05	- 0 25	
Aug 5	+ 09	- 02	- 0 13	- 0 02	- 0 03	- 0 21	δ Uis Min and θ Ophiuchi
8	+ 06	- 02	+ 0 03	+ 0 01	- 0 01	- 0 24	δ Uis Min and μ ¹ Sagittarii
9	+ 05	- 02	+ 0 04	+ 0 01	- 0 01	- 0 24	ε Uis Min and 43 R P L
11	+ 05	- 02	+ 0 03	0 00	- 0 03	- 0 24	

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
1864			<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	
Aug 12	+08	-02	+008	-002	+001	-023	
13	+02	-02	+006	-001	+002	-022	
15	+01	-02	-007	-001	-001	-021	
16	+06	+02	000	+001	-002	-020	δ Urs Min and 51 Cephei
17	-03	-02	+010	+002	+003	-021	
18	+02	+02	+007	-006	-002	-023	
19	+09	+02	000	-002	-002	-024	
20	+05	+02	-001	-002	-001	-025	
22	+05	+02	+013	-006	-006	-028	
23	+05	+02	000	-008	-007	-029	λ Urs Min and 51 Cephei
24	+07	+02	-007	-004	-001	-027	
26	+05	+02	000	-004	-001	-024	
29	+04	+02	-012	-012	-004	-020	
31	+15	+02	-007	-016	-004	-017	
Sep 2	+27	-03	000	-011	-001	-014	24 Urs Min and δ Aquilæ
5	+33	-03	000	-012	000	-013	150 R P L and ρ Capri corni
9	+26	-03	+002	-013	000	-020	
10	+29	-03	+003	-013	-001	-022	
12	+31	-03	-005	-014	000	-026	
13	+24	-03	-008	-016	-001	-028	143 and 49 R P L
14	+26	-03	-006	-017	-001	-027	
15	+18	-03	-010	-015	+002	-027	
16	+25	-01	-012	-015	+002	-026	
19	+27	-01	-005	-010	+002	-024	
20	+26	-01	-004	-010	+002	-024	
22	+26	-01	-006	-013	+002	-022	
24	+23	-01	-007	-013	+002	-021	
26	+23	-01	-008	-015	+001	-020	150 and 60 R P L
27	+22	-01	-007	-014	+001	-024	
28	+16	-01	-004	-019	-002	-028	
29	+18	-01	-004	-016	-001	-031	λ Urs Min and 60 R P L

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
1864			s	s	s	s	
Oct 1	+13	-03	-015	-011	+001	-025	158 and 72 R P L
3	+21	-03	-032	-016	-004	-019	
4	+21	-03	-027	-015	+001	-019	
5	+15	-03	-029	-019	-004	-018	
6	+05	-03	-024	-014	+001	-018	
7	+07	-03	-018	-017	-004	-017	150 R P L and δ Sculp- toris
8	+08	-03	-060	-014	-001	-017	
10			-018	-015	-001	-017	
11	+08	-03	-026	-016	-002	-017	Polaris and θ Aquarii
13	+13	-03	-024	-020	-002	-017	
14	+10	-03	-016	-021	-001	-018	
15	+13	-03	-014	-026	-006	-018	
17	+21	+02	-031	-022	+002	-019	
20	+34	+02	-036	-045	-002	-021	5 Pegasi and 79 R I L
21	+61	+02	-023	-044	-006	-022	
22	+62	+02	-016	-044	-005	-020	
24	+73	+02	-007	-036	-001	-015	
25	+63	+02	-016	-039	000	-013	
26	+66	+02	-024	-035	+002	-010	Polaris and 101 R P I
27	+60	+02	-021	-035	+001	-008	
28	+50	+02	-021	-031	+002	-008	
31	+47	+02	+084	-034	+001	-009	
Nov 1			+106	-034	-002	-009	
2	+51	-02	+123	-033	-005	-010	12 and 72 R P L
3	+43	-02	+123	-032	-003	-009	
4	+48	-02	-001	-030	-005	-009	
5	+38	-02	+001	-032	-003	-008	158 and 89 R P L
7	+28	-02	-003	-036	-003	-005	
8	+37	-02	-003	-034	-002	-003	
10	+40	-02	-003	-034	000	000	

The Transit clock was cleaned on October 29th without removing or in any way interfering with the pendulum. Its rate was altered 1 second after the observations on November 3.

INTRODUCTION

Instrumental Corrections adopted in 1864

Date	Index	Run in 5	Clock Rate	Inclina- tion	Collima- tion	Meridian	Determining Stars
1864			s	s	s	s	
Nov 11	+ 34	- 02	- 0 07	- 0 32	- 0 01	+ 0 02	
12	+ 33	- 02	- 0 21	- 0 34	- 0 01	+ 0 04	
14	+ 31	- 02	- 0 57	- 0 33	- 0 01	+ 0 07	
16	+ 46	+ 01	- 0 75	- 0 32	+ 0 02	+ 0 10	
21	+ 63	+ 01	- 0 89	- 0 35	+ 0 02	+ 0 12	34 R P L and γ Eridani
22	+ 67	+ 01	- 0 92	- 0 30	+ 0 05	+ 0 03	Polaris 34 and 111 R P L
23	+ 66	+ 01	- 0 98	- 0 32	+ 0 04	+ 0 04	
24	+ 56	+ 01	- 1 06	- 0 32	0 00	+ 0 05	
25	+ 55	+ 01	- 1 06	- 0 37	0 00	+ 0 07	
29	+ 71	+ 01	+ 0 01	- 0 28	+ 0 04	+ 0 12	Polaris and Achernar
30	+ 78	+ 01	+ 0 08	- 0 27	+ 0 04	+ 0 09	
Dec 1	+ 79	- 03	- 0 01	- 0 29	+ 0 02	+ 0 06	Polaris and ν Piscum
2	+ 76	- 03	- 0 09	- 0 24	+ 0 07	+ 0 08	
3	+ 76	- 03	- 0 05	- 0 32	0 00	+ 0 10	
5	+ 67	- 03	- 0 18	- 0 30	+ 0 01	+ 0 15	
6	+ 74	- 03	- 0 18	- 0 33	+ 0 01	+ 0 17	33 R P L and β Ceti
7	+ 76	- 03	- 0 17	- 0 33	- 0 01	+ 0 15	
8	+ 77	- 03	- 0 20	- 0 32	0 00	+ 0 12	
9	+ 75	- 03	- 0 17	- 0 29	0 00	+ 0 10	
10	+ 61	- 03	- 0 16	- 0 32	0 00	+ 0 07	Polaris and ξ^2 Ceti
12	+ 63	- 03	- 0 15	- 0 36	- 0 05	+ 0 06	
13	+ 62	- 03	- 0 22	- 0 36	- 0 04	+ 0 05	
14	+ 50	- 03	- 0 27	- 0 35	- 0 02	+ 0 05	
15	+ 53	+ 01	- 0 26	- 0 34	- 0 01	+ 0 04	51 Cephei and δ Urs Min
16	+ 53	+ 01	- 0 24	- 0 34	0 00	+ 0 06	
17	+ 57	+ 01	- 0 18	- 0 37	0 00	+ 0 08	
20	+ 50	+ 01	- 0 16	- 0 27	+ 0 04	+ 0 14	Polaris 34 and 114 R P L
21	+ 49	+ 01	- 0 19	- 0 35	+ 0 03	+ 0 13	
22	+ 49	+ 01	- 0 19	- 0 30	+ 0 04	+ 0 13	
23	+ 50	+ 01	- 0 13	- 0 32	+ 0 02	+ 0 12	

The Transit clock rate was again altered 1 second on November 26th

SEPARATE RESULTS OF OBSERVATIONS

These, though forming the bulk of the present volume, require but little further explanation than is afforded by the headings of each column

In the second column, Flamsteed's numbers, Bayer's Greek letters, and familiar names by which the principal stars are known, have been used in preference to any other designations. For other objects, reference is made to "*Taylor's Madras Catalogue*", to Baily's edition of "*Lalande*", to the two Catalogues of "*Bessel's Zones*", compiled by Weisse, with W B E for the first, containing stars within 15° of the equator, and W B N for the second or northern one. Similarly, the northern and southern catalogues of "*Argelander's Zones*", compiled by Oeltzen, are indicated respectively by O A N and O A S. Polar stars, used for meridian error, taken from the "*Catalogue of 164 Stars within 6° of the North Pole*", in Vol XVI of the "*Radcliffe Observations*", are referred to by their number therein, followed by R P L. For the Variable Stars I have used my own nomenclature, agreed to by Prof. Argelander, Sir John Herschel and other astronomers, when my Atlas of these objects was first fairly taken in hand, nearly thirty years back, in which Prof. Argelander's letters, R, S, T, &c, were returned, but the name of the constellation is followed by Var 1, Var 2, &c, showing thereby the order of proved variability of each star in such constellation. As it is now so many years since this simple method of reference to the variable stars was first suggested by me, it may be as well to state that it makes no distinction between periodical and temporary stars, those which are subject to more or less regular changes and those which have only once risen to a maximum. Thus, in Cassiopea, we have Gemma's Nova of 1572, known as B Cassiopea Var 1, a Cassiopea Var 2, R Cassiopea Var 3, &c. In Scorpio also, we have, R Scorpii Var 1, S Scorpii Var 2, the two small variables near the cluster 80 Messier, first figured on page 357 of Smyth's Celestial Cycle, W¹ T Scorpii Var 3, Aurigæ's Nova of 1860, which blazed out apparently in the centre of the cluster itself, and V Scorpii Var 4, my own Nova of 1863, No. 601 of the Lists for 1863 on pages 99 and 152 of this volume.

The estimations of magnitude made by Ragoonath Chry are fairly accordant with Argelander's scale and are generally within a quarter of a magnitude, but those of Mootloosawmy, who affected tenths, were much less certain.

MEAN POSITIONS OF STARS OBSERVED IN EACH YEAR

In the annual lists of Mean Positions of Stars, only complete observations are included, so as to render the mean date the same for both co ordinates. The numbers and references for the stars observed are the same as in the Separate Results. When magnitudes were noted, the mean of the estimations is given, but when no figure stands in the column of Estimations it must be understood that the magnitude entered is taken, from Argelander's "*Uranometria Nova*", from the two Radcliffe Catalogues, or from some other trustworthy source.

The Right Ascensions and Polar Distances are the simple means of the separate results, the latter being still only provisional and subject to further small changes in regard to the corrections for flexure and assumed latitude.

The tables on the four following pages, showing the excess of the Madras Mean Positions above those given in the Nautical Almanac for each year, render it certain that the Polar Distances will require some further small correction before being formed into a final general catalogue.

The annual precessions were computed by means of the formulæ given in the Nautical Almanac, in which the coefficients of Prof Peters were adopted, and the secular variations are the differentials of the precessions multiplied by 100, the variations of m and n being duly taken into account.

The proper motions, when not otherwise mentioned, are from the well-known lists published by Mr Main, in the 19th and 28th, and by Mr Stone, in the 33rd volumes of the "*Memoirs of the Royal Astronomical Society*". When from any other source the authority is given in the foot notes "*Greenwich Catalogue*" refers to the most recent of the five Greenwich Catalogues in which the star was found, and "*Stone's Catalogue*" to the great "*Cape Catalogue of 12,441 Stars*".

OTHER OBSERVATIONS WITH THE MERIDIAN CIRCLE

The observations given in this volume relate only to the fixed stars. During the three years however, 163 observations of the Moon, 66 of Mars and 195 of 37 Minor Planets were made with the Meridian Circle, all of which await publication in a volume of Planetary and Cometary discoveries and observations, made chiefly with the equatorials but supplemented by the Meridian Circle when any planet was not much below the 10th magnitude and was therefore observable in the illuminated field of that instrument.

Comparison of Madras Mean Positions with the Nautical Almanac

Star	Approximate Position 1863		1862			1863			1864		
			Obs	R A	P D	Obs	R A	P D	Obs	R A	P D
	<i>h m</i>						<i>s</i>				
α Andromedæ	0 1	61 40	4	+ 0 03	+ 0 9	4	+ 0 01	+ 1 8	9	- 0 04	+ 2 2
γ Pegasi (<i>Algenib</i>)	0 6	75 35	2	+ 0 02	+ 0 2	6	- 0 01	+ 1 7	9	+ 0 02	+ 1 7
12 Ceti	0 23	94 43	5	- 0 03	+ 0 7	6	- 0 04	+ 1 1	9	- 0 05	+ 1 6
α Cassiopeæ	0 33	34 13				2	- 0 13	+ 1 7	1	- 0 39	+ 2 2
β Ceti	0 37	108 44	5	+ 0 02	- 0 9	2	+ 0 12	- 0 7	11	+ 0 07	- 0 4
ϵ Piscium	0 56	82 51	4	- 0 03	- 0 2	11	- 0 06	+ 0 7	8	- 0 04	+ 1 0
α Urs Min (<i>Polaris</i>)	1 9	1 25				9	+ 0 12	+ 0 3	8	- 0 45	+ 0 6
θ Ceti	1 17	98 53	4	- 0 01	- 0 3	12	+ 0 03	+ 0 4	6	+ 0 02	+ 1 1
η Piscium	1 24	75 22	7	+ 0 04	+ 0 2	10	+ 0 01	+ 1 7	10	+ 0 04	+ 1 9
α Eridani (<i>Achenar</i>)	1 33	147 56				2	+ 0 33	+ 2 2	3	+ 0 30	+ 3 5
ν Piscium	1 34	85 12	22	+ 0 03	+ 0 5	5	+ 0 03	+ 0 5	6	- 0 03	+ 1 1
β Arietis	1 47	69 52	10	0 00	+ 1 2	13	+ 0 01	+ 1 5	7	+ 0 01	+ 2 2
α Arietis	1 59	67 11	11	+ 0 04	+ 0 6	10	- 0 05	+ 1 5	7	- 0 05	+ 1 7
67 Ceti	2 10	97 3	6	- 0 02	+ 0 4	6	- 0 03	+ 1 2	7	+ 0 05	+ 0 7
ξ Ceti	2 21	97 51	6	+ 0 03	- 0 1	8	- 0 02	- 0 6	9	- 0 02	- 0 1
γ Ceti	2 36	87 21	4	0 00	- 0 8	6	+ 0 01	+ 0 9	8	+ 0 05	+ 0 2
α Ceti	2 55	86 27	2	- 0 02	- 0 9	8	+ 0 02	- 0 1	7	+ 0 04	+ 0 1
δ Arietis	3 4	70 43	2	+ 0 05	+ 1 8	5	- 0 01	+ 1 8	9	- 0 05	+ 2 1
α Persæ	3 15	40 38	1	0 00	+ 1 1				3	- 0 13	+ 0 3
η Tauri	3 39	66 19	3	- 0 03	+ 1 0	10	- 0 02	+ 1 2	11	0 00	+ 1 7
γ^1 Eridani	3 52	103 54	2	+ 0 04	- 1 3	8	+ 0 02	0 0	8	+ 0 09	+ 0 6
α^1 Eridani	4 5	97 12				2	- 0 03	+ 1 7	3	- 0 02	+ 1 2
ϵ Tauri	4 21	71 8	4	+ 0 06	+ 1 0	11	0 00	+ 0 9	13	+ 0 02	+ 1 9
α Tauri (<i>Aldebaran</i>)	4 28	73 46	1	- 0 01	+ 1 5	11	0 00	+ 1 5	9	- 0 01	+ 1 9
ι Aurigæ	4 48	57 3	2	+ 0 01	+ 2 0	3	- 0 10	+ 0 6	8	0 00	+ 1 5
ϵ Leporis	5 0	112 33				6	+ 0 07	- 0 4	5	+ 0 02	+ 0 1
α Aurigæ (<i>Capella</i>)	5 7	44 9				1	- 0 03	- 0 7	2	- 0 07	- 0 2
β Orionis (<i>Rigel</i>)	5 8	98 22				4	- 0 03	+ 0 7	7	0 00	+ 0 4
β Tauri	5 18	61 31	2	+ 0 01	+ 1 6	7	- 0 03	+ 0 3	3	+ 0 03	+ 1 3
δ Orionis	5 20	90 24				7	- 0 02	+ 0 1	3	+ 0 01	- 0 8
α Leporis	5 26	107 55				5	+ 0 03	- 0 3	2	+ 0 04	+ 0 5
ϵ Orionis	5 29	91 18				3	+ 0 03	+ 0 3	5	+ 0 08	+ 0 6
α Columbæ	5 35	124 9				5	- 0 11	+ 1 3	6	- 0 14	+ 2 0
α Orionis	5 48	82 37				12	0 00	- 0 2	4	+ 0 05	0 0
ν Orionis	6 0	75 13				12	- 0 02	+ 0 6	6	+ 0 04	+ 1 1

Comparison of Madras Mean Positions with the Nautical Almanac

Star	Approximate Position 1863		1862			1863			1864		
			Obs	R A	P D	Obs	R A	P D	Obs	R A	P D
	<i>h m</i>						<i>s</i>				
μ Geminorum	6 15	67 25	1	- 0 08	- 0 1	7	+ 0 06	+ 0 5	8	+ 0 03	+ 1 9
α Argus (<i>Canopus</i>)	6 21	142 37							3	- 0 11	- 0 8
γ Geminorum	6 29	73 29	2	- 0 01	+ 1 4	12	- 0 03	+ 0 9	9	- 0 05	+ 1 7
δ 1 (H ϵ) Cephei	6 35	2 45				8	+ 0 03	+ 0 6	15	+ 0 27	+ 0 5
α Can Maj (<i>Sirius</i>)	6 39	106 32				1	- 0 21	- 0 3	3	- 0 20	- 0 1
ϵ Canis Majoris	6 53	118 47				6	+ 0 01	- 1 1	7	+ 0 01	- 0 9
γ Canis Majoris	6 58	105 26				7	- 0 02	+ 0 5	4	- 0 0	+ 0 5
δ Geminorum	7 12	67 46				17	- 0 03	+ 0 9	10	+ 0 01	+ 1 7
α Gem (<i>Castor</i>)	7 26	57 49				12	0 00	+ 0 8	3	- 0 03	+ 1 4
α Can Min (<i>Procyon</i>)	7 32	84 26				15	+ 0 04	+ 1 9	7	+ 0 04	+ 2 1
β Gem (<i>Pollux</i>)	7 37	61 30				10	+ 0 04	+ 0 9	6	+ 0 05	+ 1 5
δ Cancri	7 55	61 49				9	- 0 04	+ 1 5	4	- 0 03	+ 2 1
δ 1 Argus	8 2	113 55				6	+ 0 07	+ 0 5	9	0 00	+ 0 2
η Cancri	8 25	69 6				8	+ 0 05	+ 0 2	9	+ 0 04	+ 1 4
ϵ Hydre	8 40	83 5				12	- 0 06	- 1 4	6	- 0 04	+ 0 6
δ Ursa Majoris	8 50	41 25							4	+ 0 06	+ 0 2
δ 3 Cancri	9 11	71 43				13	+ 0 11	+ 0 6	4	+ 0 02	+ 0 8
δ Argus	9 13	143 42							3	+ 0 12	+ 4 8
α Hydre	9 21	98 4				13	0 00	+ 0 3	6	+ 0 01	+ 0 3
θ Ursa Majoris	9 24	37 42							2	+ 0 06	+ 0 6
ϵ Leonis	9 38	65 36				12	+ 0 01	+ 0 7	8	- 0 02	+ 1 4
π Leonis	9 53	81 18				13	+ 0 01	+ 0 1	10	0 00	+ 0 1
α Leonis (<i>Regulus</i>)	10 1	77 22				20	- 0 02	+ 0 4	14	- 0 01	+ 0 3
γ Leonis	10 12	69 28				20	+ 0 05	+ 0 7	12	- 0 04	+ 1 1
ρ Leonis	10 26	79 59				12	- 0 06	+ 0 3	10	- 0 03	+ 0 5
η Argus	10 40	148 58							5	- 0 06	+ 3 1
ι Leonis	10 42	78 44				11	+ 0 02	+ 0 5	11	+ 0 02	+ 0 6
α Ursa Majoris	10 55	27 31							3	- 0 01	+ 0 4
χ Leonis	10 58	81 55				8	- 0 01	- 0 7	11	+ 0 03	- 0 1
ϕ Leonis	11 7	68 41				11	- 0 05	+ 0 2	10	- 0 02	+ 0 7
ϕ Crateri	11 12	104 5				13	+ 0 05	- 1 0	8	+ 0 04	- 0 8
ν Leonis	11 30	90 4				13	- 0 01	+ 1 0	13	- 0 01	+ 1 3
β Leonis	11 42	74 40				6	+ 0 04	+ 1 0	11	+ 0 02	+ 0 9
γ Ursa Majoris	11 47	35 33							1	- 0 10	- 0 1
ϵ Corvi	12 3	111 51	3	- 0 08	+ 1 0	5	- 0 02	+ 0 7	8	+ 0 03	+ 0 1

Comparison of Madras Mean Positions with the Nautical Almanac

Star	Approximate Position 1863		1862			1863			1864		
			Obs	P A	P D	Obs	R A	P D	Obs	I A	P D
	<i>h m</i>						<i>s</i>				
η Virginis	12 13	89 51				4	+ 0 03	+ 13	6	+ 0 05	+ 0 9
α Crucis	12 19	152 20							2	+ 0 39	+ 3 8
β Corvi	12 27	112 38	3	+ 0 10	+ 0 5	5	+ 0 10	- 0 2	4	+ 0 14	- 1 0
γ Virginis	12 35	90 42				1	- 0 06	- 3 7			
12 Canum Veneti	12 50	50 56				5	- 0 01	+ 1 2	11	+ 0 03	+ 0 9
θ Virginis	13 3	94 48				5	- 0 02	+ 0 8	11	- 0 02	+ 0 6
α Virginis (<i>Spica</i>)	13 18	100 27	2	+ 0 09	+ 1 8	9	- 0 01	- 0 4	14	+ 0 01	0 0
δ Virginis	13 28	89 51	2	- 0 01	+ 2 5	12	- 0 05	+ 1 0	15	+ 0 05	+ 1 5
η Ursæ Majoris	13 42	40 0	1	+ 0 08	+ 1 5				3	- 0 07	+ 0 3
η Bootis	13 48	70 55	2	- 0 06	- 0 2	9	- 0 04	+ 0 5	13	- 0 01	+ 0 9
τ Virginis	13 55	87 47	1	+ 0 04	+ 0 1	5	0 00	- 0 7	13	+ 0 02	- 0 3
α Bootis (<i>Arcturus</i>)	14 9	70 6	4	+ 0 01	+ 0 6	5	+ 0 02	+ 1 3	6	+ 0 05	+ 0 9
ρ Bootis	14 26	59 2	5	- 0 07	+ 1 6	6	- 0 07	+ 1 4	8	- 0 07	+ 1 1
α Centauri (2nd)	14 30	150 16							2	- 1 05	+ 15 1
ϵ Bootis	14 39	62 31	3	+ 0 05	+ 0 8	5	- 0 01	+ 0 3	11	+ 0 00	+ 0 4
α Libræ	14 43	105 28	2	- 0 13	+ 0 1	4	- 0 05	- 0 2	12	+ 0 02	- 0 2
β Ursæ Minoris	14 1	15 17	2	- 0 23	+ 0 3				1	- 0 26	- 1 1
ψ Bootis	14 59	62 31	3	- 0 01	+ 2 2	5	- 0 06	+ 0 7	8	- 0 07	+ 1 6
β Libræ	15 10	98 53	3	- 0 13	+ 0 5	6	+ 0 07	0 0	7	- 0 01	- 0 1
α Coronæ Borealis	15 29	62 49	6	+ 0 09	+ 0 7	3	0 00	+ 0 3	5	+ 0 05	+ 1 3
α Serpentis	15 38	53 8	2	- 0 02	+ 0 6	6	+ 0 01	- 0 3	7	+ 0 02	+ 0 1
δ Ursæ Minoris	15 49	11 47	1	+ 0 21	+ 0 3				2	+ 0 20	+ 0 4
β^1 Scorpii	15 57	109 26	13	- 0 01	+ 0 7	6	+ 0 06	- 0 1	7	0 00	- 0 3
δ Ophiuchi	16 7	93 20	1	0 00	+ 2 7	1	+ 0 27	+ 1 0	5	+ 0 05	+ 1 0
α Scorpii (<i>Antares</i>)	16 21	116 7	8	0 00	+ 0 3	7	+ 0 03	- 0 9	10	- 0 02	- 0 3
δ Herculis	16 36	58 9	9	0 00	+ 1 9	5	- 0 02	+ 1 8	7	+ 0 01	+ 1 9
κ Ophiuchi	16 51	80 20	9	- 0 03	- 0 1	8	+ 0 10	+ 0 4	7	- 0 11	+ 0 5
ϵ Ursæ Minoris	17 0	7 45	2	+ 0 04	+ 1 9				6	- 0 25	+ 1 6
α Herculis Var 1	17 8	75 27	5	+ 0 03	0 0	9	+ 0 06	+ 1 2	8	+ 0 02	+ 1 0
θ Ophiuchi	17 14	114 52	4	- 0 08	+ 1 7	9	+ 0 03	+ 1 3	5	+ 0 03	+ 1 0
α Ophiuchi	17 29	77 20	8	+ 0 03	+ 0 8	5	+ 0 02	+ 1 4	5	- 0 02	+ 0 5
μ Herculis	17 41	62 10	3	- 0 02	+ 0 5				2	+ 0 03	+ 0 6
γ Draconis	17 53	38 30	1	+ 0 21	+ 1 2				1	- 0 01	+ 0 8
μ Sagittarii	18 6	111 5	1	+ 0 04	- 1 5	9	+ 0 03	0 0	4	+ 0 03	- 0 1
δ Ursæ Minoris	18 17	3 24				9	+ 0 10	- 0 9	5	+ 0 41	- 0 5

Comparison of Madras Mean Positions with the Nautical Almanac

Star	Approximate Position 1863		1863			1864			1864		
			Obs	R A	I D	Obs	R A	P D	Obs	P A	I D
	<i>h m</i>										
α Lyrae (Vega)	18 3	51 21	2	- 0 8	0 0	6	0 00	+ 11	4	0 00	+ 18
β Lyrae Vairi	18 46	56 18	5	+ 0 07	+ 0 0	4	+ 0 02	+ 0 1	5	- 0 03	+ 0 2
γ Aquilæ	18 59	76 20	5	+ 0 10	+ 0 7	7	+ 0 04	+ 11	7	+ 0 05	+ 18
ω Aquilæ	19 11	78 39	2	- 0 13	+ 0 1	5	+ 0 01	+ 0 5	1	- 0 03	0 0
δ Aquilæ	19 13	97 5	3	0 00	- 0 2	4	- 0 02	+ 0 4	7	- 0 01	+ 13
h Scutellari	19 25	115 11	3	+ 0 07	+ 1 2	2	+ 0 05	+ 1 9	5	+ 0 11	+ 15
γ Aquila	19 40	79 43	2	- 0 09	+ 1 1	5	- 0 0	+ 0 2	3	- 0 05	+ 0 8
α Aquila (Altair)	19 41	81 29	2	+ 0 02	- 0 3	2	+ 0 01	+ 0 8	2	+ 0 01	0 0
β Aquilæ	19 49	93 56	2	+ 0 04	- 0 2	5	- 0 01	+ 0 7	4	- 0 03	+ 10
λ Ursæ Minoris	20 1	1 6				3	- 0 72	- 0 1	1	- 0 38	0 0
α Capricorni	20 10	102 55	3	+ 0 03	+ 0 1	7	+ 0 01	+ 0 2	7	- 0 03	+ 0 1
α Pavonis	20 15	147 10				1	- 0 41	+ 3 0	3	- 0 11	+ 18
ρ Capricorni	20 21	108 16	4	+ 0 06	+ 0 5	12	+ 0 05	+ 0 7	7	+ 0 05	+ 0 3
α Cygni	20 27	15 1	5	- 0 01	+ 1 1	1	- 0 02	+ 1 5	5	- 0 05	+ 13
β Vulpeculæ	20 49	62 2	2	+ 0 02	+ 1 3	2	- 0 07	- 0 1	9	- 0 01	+ 10
δ Cygni (1st)	21 1	51 5				1	+ 0 21	+ 1 3	3	+ 0 26	+ 0 7
γ Cygni	21 7	60 20	5	- 0 03	+ 0 5	6	- 0 01	+ 0 9	9	+ 0 03	+ 12
α Cephei	21 15	29 0							3	+ 0 01	+ 0 6
β Aquarii	21 21	96 10	1	+ 0 03	+ 1 1	11	+ 0 01	+ 0 9	11	+ 0 05	+ 12
δ Cephei	21 27	20 2							3	+ 0 29	- 0 9
ϵ Pegasi	21 7	80 45	5	- 0 03	- 0 3	6	- 0 0	+ 0 7	10	- 0 02	+ 0 9
ι Pegasi	21 47	61 43	6	+ 0 05	- 0 3	8	- 0 06	+ 1 6	9	- 0 09	+ 1 1
α Aquarii	21 9	90 51	7	- 0 04	+ 0 1	5	0 00	+ 0 5	10	+ 0 01	+ 0 7
α Geminorum	22 0	137 37							1	- 0 06	+ 24
θ Aquarii	22 10	96 25	5	+ 0 01	0 0	1	0 00	+ 0 7	10	+ 0 01	+ 10
η Aquarii	22 25	90 49	16	+ 0 04	+ 0 8	9	+ 0 01	+ 1 5	9	0 00	+ 13
ρ Pegasi	22 35	79 53	10	+ 0 03	0 0	4	- 0 01	+ 1 1	5	+ 0 01	+ 0 6
α Piscium (Fomalhaut)	22 50	120 21	13	+ 0 01	+ 0 1	8	+ 0 05	+ 0 6	7	+ 0 08	+ 0 7
α Iegasi (Markab)	22 5	75 32	16	- 0 02	+ 1 1	1	- 0 01	+ 2 1	4	- 0 06	+ 18
γ Piscium	23 10	97 25	18	- 0 02	0 0	8	- 0 03	+ 1 0	4	0 00	+ 0 4
κ Piscium	23 20	89 30	12	- 0 05	+ 0 7	12	- 0 01	+ 1 2	8	0 00	+ 14
ι Piscium	23 3	85 7	10	- 0 03	- 0 6	11	- 0 01	+ 0 4	7	- 0 02	+ 0 6
γ Cephei	23 4	13 8							3	+ 0 36	+ 19
δ Sculptoris	23 47	119 53	7	- 0 03	+ 1 3	13	+ 0 01	+ 1 7	11	0 00	+ 19
ω Piscium	23 52	85 54	9	- 0 03	- 0 3	5	- 0 05	+ 0 5	11	- 0 06	+ 0 9

[illegible]

SEPARATE RESULTS
OF
OBSERVATIONS
MADE WITH THE
MADRAS MERIDIAN CIRCLE
IN THE YEAR
1862.

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s		°	'	"	
1	21 Andromeda α	Sep	20	M	0	1	15 69	6	61	40	19 0	
		Oct	10	S		1	1 44			40	18 1	
			11	S		1	15 49			40	18 8	
			13	S		1	1 45			40	18 1	
2	47374 Lalonde	Oct	21	R	0	2	51 21	4	93	19	45 5	
			25	R		2	51 09	5		19	45 3	
			27	R		2	51 01			19	45 8	
			25	R		2	51 08	5		19	45 5	
3	88 Pegasi γ	Sep	11	R	0	6	7 93		75	35	23	
		Dec	3	M		6	7 91			35	18	
4	48 Taylor	Aug	26	S	0	10	42 55	5	60	1	42 7	
		Sep	6	R		10	42 48			4	48 9	
			18	M		10	42 55			4	43 3	
		Oct	8	S		10	42 73	6		4	42 0	
			9	S		10	42 59			4	42 3	
			10	S		10	42 56			4	43 9	
			11	S		10	42 41	5		4	44 4	
			13	S		10	42 60			4	43 7	
			14	S		10	42 46			4	41 6	
			15	S		10	42 55			4	44 1	
			16	R		10	42 43			4	43 9	
			17	R		10	42 58	6		4	41 6	
			23	R		10	42 51			4	44 0	
			25	R		10	42 5	1		4	44 0	
			27	R		10	42 43	6		4	44 6	
			28	R		10	42 18	6		4	43 0	
			31	R		10	42 47			4	42 9	
		Nov	1	M		10	42 39			4	44 1	
5	41 Piscium δ	Aug	12	M	0	13	29 79		62	31	35 0	
		Sep	8	R		13	29 86			34	35 0	
		Oct	6	S		13	29 96			34	33 2	
			7	S		13	29 94			34	33 6	
		Nov	3	M		13	29 87			34	34 5	
6	44 Piscium	Aug	26	S	0	13	19 92	5	88	49	28 7	
			27	S		13	19 57			49	28 2	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wines	Mean Polar Distance 1862			Magnitude
					h	m	s					
6	44 Piscum	Oct	7	S	0	18	19 82	4	88	49	28 2	
			9	S		18	19 57	5		49	28 5	
			10	S		18	19 83			49	29 1	
			16	R		18	19 72			49	30 3	
			23	R		18	19 72	5		49	30 7	
			25	R		18	19 81	6		49	29 3	
			27	R		18	19 74	6		49	29 3	
			28	R		18	19 72			19	25 9	
			31	R		18	19 62	5		49	30 0	
7	12 Ceti	Sep	10	R	0	22	59 70		94	43	13 6	
			22	S		22	9 9			43	11 9	
		Oct	31	R		22	59 73	5		43	13 6	
		Dec	1	M		22	59 74			13	13 2	
			2	M		22	59 70			13	13 3	
8	670 Lalande	Sep	6	R	0	23	30 1	5	85	51	13 6	70 70
			16	M		23	30 0			51	11 4	
			17	M		23	29 8			51	14 0	
			30	M		23	27 6			51	15 1	
		Oct	1	S		23	30 5			51	12 6	
			2	S		23	30 0			51	13 2	
			4	S		23	29 7			51	13 1	
			6	S		23	3 22			51	13 0	
			11	S		23	3 13			51	13 4	
			14	S		23	2 92	5		51	13 3	
			15	S		23	3 27			51	13 8	
			17	R		23	3 19	3		51	15 2	
9		Nov	6	M	0	28	17 17		89	9	14 7	90
			11	M		28	17 11			9	13 7	90
			22	S		28	17 73			8	13 7	90
10	15 Ceti	Aug	27	S	0	31	1 09		91	15	16 4	
		Oct	9	S		31	1 13			15	4 6	
			16	R		31	1 15			15	17 9	
			17	R		31	1 20	3		15	19 1	
11	1097 Lalande	Nov	5	M	0	34	29 63		89	0	36 2	80
			7	M		34	29 68			0	35 5	80

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wines	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
11	1097 Lalande	Nov 12	M	0	34	29 70	5	89	0	36 5	8 0
		Dec 10	M		34	29 80			0	34 8	8 0
12	1123 Lalande	Nov 22	S	0	3	30 68	5	89	0	41 0	8 5
		25	S		30	35 87	6		3	40 6	
13	16 Ceti β	Aug 26	S	0	36	39 52	5	108	44	38 8	
		Sep 15	R		36	39 55			44	42 2	
		Oct 8	S		36	39 57			44	40 3	
		31	R		36	39 63			44	41 2	
		Nov 20	S		36	39 61			44	40 0	
14	1198 Lalande	Nov 6	M	0	38	0 50		88	56	06 2	8 0
15	60 Piscium	Sep 30	M	0	40	15 36		84	0	48 2	
		Oct 1	S		40	15 48			0	46 4	
		2	S		40	15 47			0	46 1	
		4			40	15 47			0	46 1	
16	235 Taylor	Oct 21	R	0	41	8 87	4	85	25	47 5	
		27	R		41	8 77	6		25	47 2	
		28	R		41	8 32			25	17 1	
		Nov 3	M		41	8 81			25	46 9	
17	63 Piscium δ	Aug 27	S	0	41	31 25		63	9	59 3	
		Sep 9	R		41	31 02			10	0 7	
		10	R		41	31 41			10	0 0	
		13	R		41	31 51			9	59 9	
		16	M		41	31 45			10	0 6	
		17 ^h	M		41	31 44			10	0 3	
		18	M		41	31 04			9	59 7	
		22	S		41	31 32	6		10	2 3	
		23	M		41	31 43	6		10	0 9	
		Oct 6	S		41	31 78	5		9	58 4	
		Dec 1	M		41	31 52			10	0 6	
18		Nov 4	M	0	41	33 88		89	7	14 9	9 5
		7	M		41	33 98			7	14 4	9 0
		11	M		41	33 97			7	11 3	9 0

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
19	20 Ceti	Sep	1	P	0	45	57 53	6	91	53	41 6	*
			6	R		45	57 33	6		53	40 3	
			8	R		45	57 43	4		53	40 6	
			11	R		45	57 39			53	39 5	
			12	R		45	57 20	5		53	39 2	
			15	R		45	57 31	5		53	40 8	
			23	M		45	57 09	4		53	40 5	
			27	M		45	57 12	5		53	40 7	
			30	M		45	57 25	4		53	41 9	
			Oct 3	S		45	57 40			53	39 8	
			23	R		45	57 33			53	41 1	
			25	R		45	57 34	3		53	39 9	
			31	R		45	57 29	6		53	40 2	
			Nov 1	M		45	57 32			53	40 9	
20	0 806 W B E	Nov	5	M	0	46	33 67		88	50	25 0	10 0
			22	S		46	33 72	5		50	24 7	10 0
			20	S		46	33 78	6		50	25 9	
21	2 Ursæ Minoris	Sep	10	R	0	50	30 17	3	4	29	9 4	
22	1638 Lalande	Oct	28	R	0	50	31 39		88	57	43 6	7 5 8 0
		Nov	3	M		50	31 34			57	44 1	
			6	M		0	34 36			57	43 4	
23	1639 Lalande	Nov	7	M	0	50	36 19	6	88	39	13 1	8 5
			11	M		50	36 20	5		39	12 0	8 5
			13	M		50	36 15			39	13 7	
24	1784 Lalande	Oct	31	R	0	54	52 73		88	13	8 7	8 0 8 0
		Nov	12	M		54	52 86			13	8 2	
			10	M		54	52 77			13	6 2	
25	71 Piscium ε	Aug	28	S	0	55	47 18		82	51	13 2	
		Sep	9	R		55	46 99			51	13 3	
			10	R		55	46 93	5		51	13 3	
		Nov	4	M		55	46 90			51	12 2	
26	26 Ceti	Sep	11	R	0	56	42 92	6	89	22	25 7	
			12	R		56	42 94			22	24 8	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
26	26 Ceti	Sep	13	R	0	56	42 93	6	89	22	25 2	
			15	R		56	42 83			22	26 9	
		,	16	M		56	42 93	6		22	25 6	
			18	M		56	43 01	5		22	26 3	
			22	S		56	42 83			22	27 0	
			23	M		56	42 82			22	27 6	
		Oct	11	S		56	43 10			22	26 3	
			13	S		56	42 94			22	25 9	
			14	S		56	42 99			22	26 5	
			15	S		56	43 01			22	26 0	
			16	R		56	42 78			22	27 2	
			21	R		56	42 98			22	26 2	
			23	R		56	42 86			22	26 1	
			27	R		56	42 98			22	26 7	
27	1879 Lalande	Oct	28	R	0	57	37 82		88	25	33 8	7 8
		Nov	5	M		57	37 70			25	34 5	7 5
		,	14	M		57	37 73			25	33 5	7 5
28	0 1031 W B L	Nov	6	M	0	59	1 83	4	88	6	27 3	9 0
			22	S		59	1 75			6	28 4	9 0
		Dec	2	M		59	1 71			6	27 4	9 0
29	29 Ceti	Nov	29	S	1	0	52 70		88	43	47 2	7 0
		Dec	3	M		0	52 78			43	45 0	
30	80 Piscium e	Aug	26	S	1	1	15 71		85	4	51 2	
			27	S		1	15 66			4	52 8	
		,	28	S		1	15 99			4	52 7	
		Sep	1	P		1	15 76	6		4	53 8	
			6	R		1	15 75	6		4	52 1	
			8	R		1	15 73	6		4	52 7	
			9	R		1	15 78			4	53 4	
		,	11	R		1	15 79	5		4	53 7	
		,	12	R		1	15 70	5		4	51 7	
			13	R		1	15 82	6		4	53 0	
		Oct	7	S		1	15 72			4	51 4	
			8	S		1	15 77	3		4	51 0	
			9	S		1	15 73			4	52 1	
			10	S		1	15 72			4	53 6	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
30	80 Piscium e	Oct 14	S	1	1	15 74	4 6	85	4	53 0	
		15	S		1	16 05			4	53 3	
		17	R		1	15 73			4	53 4	
31	I 15 W B E	Nov 11	M	1	2	53 51		87	39	17 6	9 0
32	2089 Lalande	Oct 28	R	1	3	21 30		88	10	51 2	8 3
		Nov 12	M		3	21 16			10	53 3	8 5
		15	M		3	21 18			10	52 0	8 5
33	33 Ceti	Oct 31	R	1	3	27 51		88	17	23 5	
		Nov 1	M		3	27 52			17	23 9	
		13	M		3	27 61			17	23 5	
34	I 101 W B E	Nov 5	M	1	7	39 50		87	54	36 6	9 0
		6	M		7	39 60			54	36 2	9 0
		22	S		7	39 91			54	37 3	9 0
35		Oct 28	R	1	9	9 99	6	87	42	42 1	10 0
		, 31	R		9	10 02	5		42	43 6	
		Dec 1	M		9	9 84	5		42	42 8	10 0
36	89 Piscium f	Sep 30	M	1	10	40 85	6	87	6	49 6	
		Oct 1	S		10	40 95			6	46 8	
		, 2	S		10	10 97			6	47 3	
		, 3	S		10	40 90			6	47 7	
		, 4	S		10	40 77			6	47 0	
		, 7	S		10	40 98			6	46 5	
		8	S		10	41 17			6	46 2	
		9	S		10	40 94			6	46 3	
		10	S		10	40 78			6	48 2	
		11	S		10	41 06			6	47 1	
		15	S		10	41 05			6	48 1	
		16	R		10	40 90			6	48 2	
		18	R		10	41 13			6	48 4	
37	43 Ceti	Oct 1	S	1	15	31 17	6	91	10	19 9	
		2	S		15	31 38			10	20 5	
		3	S		15	31 56			10	21 3	
		4	S		15	31 49			10	20 6	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wnsg	Mean Polar Distance 1862			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
37	43 Ceti	Oct	9	S	1	15	31.34		91	10	20.1	7.0
			13	S		15	31.54			10	21.6	
			15	S		15	31.29			10	22.5	
			16	R		15	31.41			10	22.0	
38	45 Ceti θ	Oct	27	R	1	17	7.61	4	98	53	47.3	
			31	R		17	7.54	5		53	47.2	
		Nov	26	S		17	7.47			53	47.2	
			28	S		17	7.32			53	48.5	
39	93 Piscium ρ	Oct	8	S	1	18	49.25		71	32	40.3	
40	465 Taylor	Sep	30	M	1	19	23.47	6	91	7	22.0	
		Nov	22	S		19	23.63			7	2.4	
			25	S		19	23.76	4		7	2.9	
41	98 Piscium μ	Aug	26	S	1	22	57.55		84	34	6.5	
			27	S		22	57.33	3		34	6.8	
		Sep	9	R		22	57.34	5		34	8.3	
			13	R		22	57.52	5		34	7.7	
			16	M		22	57.28			34	8.2	
			23	M		22	57.34			34	7.9	
			27	M		22	57.47			34	8.1	
42	99 Piscium η	Sep	10	R	1	24	6.13		75	22	1.2	
			11	R		24	6.16			22	1.0	
		Oct	7	S		24	6.06			21	58.9	
			9	S		24	6.23			22	0.1	
			28	R		24	6.19			22	0.0	
		Nov	20	S		24	6.18			22	1.4	
			24	S		24	6.20	6		22	1.4	
43	514 Taylor	Dec	1	M	1	28	27.10		73	16	27.0	6.0
			2	M		28	26.98			16	27.6	6.0
44	106 Piscium ν	Aug	26	S	1	34	15.13		85	12	42.7	
			28	S		34	15.22			12	42.8	
		Sep	6	R		34	15.19	2		12	43.3	
			8	R		34	15.20			12	43.3	
			10	R		34	15.04			12	43.9	

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Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1882			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
41	106 Piscium ν	Sep	11	R	1	31	15 02		80	12	13 7	
			12	R		34	15 15	6		12	43 2	
			13	R		31	15 03	6		12	13 5	
			15	R		31	15 15	6		12	41 1	
			16	M		31	15 10			12	43 1	
			17	M		31	15 11			12	13 5	
			18	M		31	15 26			12	43 9	
		Nov	23	M		31	15 13			12	41 5	
			12	M		31	15 14			12	43 3	
			13	M		31	15 11			12	45 0	
			20	S		31	14 99			12	43 0	
			21	S		31	14 98	5		12	14 7	
			28	S		31	15 27			12	14 3	
		Dec	3	M		31	15 06			12	43 3	
			4	M		31	15 08			12	43 3	
			5	M		31	15 18			12	41 1	
			10	M		31	15 12			12	14 3	
45	590 Tylor	Sep	10	R	1	41	17 31		87	0	18 7	
			11	R		41	17 26			0	18 9	
			17	M		41	17 02	4		0	18 0	
			18	M		41	17 17			0	17 5	
46	111 Piscium ξ	Sep	6	R	1	16	21 86	1	87	29	11 5	
			8	R		46	21 66			29	12 0	
			15	R		46	21 78	5		29	43 7	
			16	M		46	21 17			29	43 7	
			23	M		16	21 78	6		29	16 1	
47	6 Auctis β	Aug	28	S	1	47	1 03	1	61	52	6 4	
		Sep	1	R		17	1 26			52	5 0	
			10	R		17	1 30			52	5 9	
			11	R		17	1 29			5	6 0	
			12	R		47	1 37			52	6 3	
			13	R		17	1 31			52	6 5	
		Nov	4	M		17	1 13	5		52	6 8	
			5	M		17	1 30			52	6 1	
			11	M		47	1 26				5 9	
			12	M		47	1 33			52	6 6	
			22	S		47	1 21			52	6 1	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wines	Mean Polar Distance 1862			Magnitude
				h	m	s					
47	6 Arctus β	Nov 21	S	1	17	1 51		60	52	6 2	
		26	S		17	1 35			52	6 4	
		28	S		17	1 31			52	6 7	
		Dec 1	M		17	1 33			52	6 6	
48	13 Arctus α	Sept 1	I	1	59	21 05		67	11	21	
		15	R		59	23 93			11	32 8	
		Oct 9	S		59	23 91			11	30 0	
		10	S		59	23 59			11	32 3	
		Nov 1	M		59	21 00			11	31 9	
		5	M		9	23 52			11	30 7	
		20	S		59	23 97			11	29 8	
		21	S		9	23 89			11	32 0	
		Dec 1	M		59	23 92			11	32 1	
		5	M		59	21 03			11	32 5	
49	21 Arctus	Nov 11	M	2	7	53 12		65	35	54 2	6 5
		Dec 1	M		7	53 36			35	56 0	7 0
		5	M		7	53 10			35	55 6	
50	67 Ceti	Oct 31	R	2	10	5 93		97	3	35 1	
		Nov 8	M		10	6 00			3	35 1	
		22	S		10	6 03			3	35 8	
		26	S		10	6 02			3	35 7	
		29	S		10	6 06			3	37 2	
		Dec 10	M		10	5 97			3	36 6	
51	22 Arctus θ	Oct 9	S	2	10	27 15		70	44	20 3	
52	68 Ceti o Var 1	Oct 28	R	2	12	22 35		93	36	21 5	5 5
		Nov 3	M		12	22 10	4		36	22 1	5 5
		4	M		12	22 62			36	22 3	6 0
53	73 Ceti ξ^2	Nov 11	M	2	20	19 56	5	52	9	37 7	
		12	M		20	49 39			9	37 7	
		22	S		20	19 57			9	39 2	
		25	S		20	49 52			9	38 1	
		29	S		20	49 57			9	39 6	
		Dec 1	M		20	49 48			9	37 5	

22 54

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Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>			<i>°</i>			
54	26 R I L	Nov 7	M	2	21	56 85	5	3	33	29 0	57 53
		8	M		21	56 70	3		33	29 0	
		15	M		21	58 61	7		33	30 5 29 5	
55	31 Arctis	Dec 2	M	2	29	6 58	5	78	9	11 0	80
		3	M		29	6 60			9	11 1	
56	32 Arctis ν	Sep 11	L	2	30	59 20		68	38	16 1	
57	86 Ceti γ	Nov 8	M	2	36	9 07		87	20	51 4	
		20	S		36	9 13			20	53 0	
		Dec 6	M		36	9 09			20	51 9	
		10	M		36	9 11			20	3 1	
58	42 Arctis π	Sep 11	I	2	11	35 86		73	6	45 1	
59	19 Arctis ϵ	Oct 10	S	2	1	19 54		69	12	0 1	
		Nov 5	M		1	19 64			12	50 5	
60	92 Ceti α	Nov 8	M	2	55	4 02	5	86	27	13 1	
		25	S		55	3 99			27	14 5	
61	33 R I I	Dec 1	M	3	0	16 70	5	5	35	17 0	
		2	M		0	17 10	3		35	17 4 17 2	
62	57 Arctis δ	Nov 5	M	3	3	11 63		70	17	3 8	
		6	M		3	14 58			47	53 1	
63	58 Arctis ν	Dec 3	M	3	6	58 55	4	69	28	11 8	
		4	M		6	58 22			28	10 8	
64		Nov 29	S	3	12	18 91	5	130	38	40 2	
65	33 Persi α	Dec 11	M	3	14	20 21		40	38	1 7	
66	17 Tauri	Nov 6	M	3	36	41 22		66	19	25 1	
		7	M		36	41 23			19	25 2	
67		Nov 29	S	3	39	1 08		136	13	17 3	80

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
68	25 Tauri γ	Nov 25	S	<i>h</i>	<i>m</i>	<i>s</i>		66	19	30.1	
		Dec 6	M	3	39	17.11			19	29.0	
		11	M		39	17.13			19	29.0	
69	34 Eridani γ	Dec 2	M	3	51	35.13		103	51	11.0	
		6	M		51	35.52			51	12.5	
70		Nov 29	S	3	53	0.15	5	128	2	17.3	10.0
71	35 Tauri λ Vul I	Nov 25	S	3	53	2.16		7	51	10.0	
72	37 Tauri A ¹	Dec 4	M	3	56	32.13		66	17	55.8	
		5	M		56	32.00			17	55.8	
73		Nov 29	S	4	3	39.17	5	116	56	14.1	9.0
74	74 Tauri ϵ	Nov 7	M	4	20	33.86		71	7	45.0	
		8	M		20	33.79			7	44.7	
		Dec 4	M		20	33.53			7	46.3	
		8	M		20	33.76			7	45.3	
75	87 Tauri α	Dec 8	M	4	23	0.20		73	46	19.5	
76	3 Aurigae ι	Dec 9	M	4	48	0.57		57	3	23.0	
		9	M		48	0.76			3	23.1	
77	109 Tauri η	Dec 5	M	5	10	59.17		68	3	0.1	6.0
78	112 Tauri β	Nov 8	M	5	17	31.31		61	30	17.5	
		Dec 5	M		17	31.09			30	50.1	
79	40 R P I	Dec 8	M	5	18	8.12	3	4	3	10.3	
80	123 Tauri	Nov 8	M	5	29	23.99		68	56	13.2	
81		Dec 8	M	5	19	21.27	3	63	50	15.9	
82	43 R P I	Dec 9	M	5	51	7.30	3	3	11	23.0	
83	13 Cominorum μ	Dec 9	M	6	14	36.60		67	20	3.7	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Stars	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
81	21 Cerniorum γ	Dec	8	M	6	29	41 30		73	29	13 2	
			9	M		29	44 31			29	11 9	
85	68 Cerniorum	Dec	9	M	7	25	13 71		73	52	50 3	
86	81 Gerniorum γ	Dec	8	M	7	38	7 85		71	9	24 2	
			9	M		38	7 81			9	24 1	
87	70 R P L	γp	Oct	7	S	9	45 55 81	6	5	25	11 1	
88	72 R I L	γp	Sep	6	L	10	9 0 53	5	5	3	3 2	
		γp	Oct	2	S		9 0 22	7		3	3 2	
		γp		13	S		9 0 02	5		3	3 7	
		γp		15	S		9 0 11	3		3	1 5	
		γp		16	R		9 0 51	3		3	2 5	
		γp	Nov	3	M		9 0 73	5		3	3 1	
		γp		5	M		9 0 62	5		3	2 5	
		γp		6	M		9 1 06	3		3	2 5	
		γp		11	M		9 1 20	5		3	2 0	
		γp		13	M		9 0 19	3		3	2 1	
89	71 L P L	γp	Oct	25	R	10	51 55 00	3	1	30	10 1	
90	89 L P L	γp	Sep	10	R	11	57 41 51	3	3	38	2 3	
		γp	Nov	7	M		57 41 59	5		35	52 2	
		γp	Dec	1	M		57 45 57	3		35	51 5	
91	2 Corvi ϵ		June	3	M	12	3 1 90	6	111	51	7 8	
				4	M		3 1 71			51	9 0	
				5	M		3 1 51			1	5 1	
92	92 I I L	γp	Nov	15	M	12	12 50 01	3	2	17	19 5	
93	93 L P I	γp	Nov	4	M	12	11 20 31	3	1	32	7 8	
94	21 Vignis γ		June	7	M	12	26 39 19	6	95	11	26 0	
95	9 Corvi β		June	3	M	12	27 5 70	1	112	35	0 0	
				4	M		27 5 49			35	0 1	
				5	M		27 8 19			35	1 3	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wines	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
96	67 Virgins α	June 3	M	13	17	55.68	6	100	26	25.2	
		5	M		17	55.57			26	26.3	
1975- 97	103 R P L <i>sp</i>	Nov 8	M	13	20	20.74 19.75	3	4	31	28.7	
98	79 Virgins β	June 4	M	13	27	39.80	6	50	53	22.7	
		, 9	R		27	39.52			53	22.1	
99	80 Ursa Majoris η	June 9	R	13	42	6.02		39	59	40.7	
100	8 Bootis η	June 7	M	13	15	6.50	4	70	51	31.3	
		10	R		45	6.69			51	31.6	
101	93 Virgins τ	June 16	S	13	51	37.51		87	47	10.1	
" 49 - 102	105 R P L	June 5	M	14	1	21.52	5	3	31	51.2	
103	16 Bootis α	June 7	M	14	9	22.13		70	5	52.1	
		, 10	R		9	22.02			5	52.2	
		16	S		9	22.07			5	51.0	
		21	S		9	21.91			5	51.7	
101	100 Virgins λ	June 9	R	14	11	35.72		102	41	2.1	
105	25 Bootis ρ	June 2	I	14	25	2.99	6	59	1	19.7	
		3	M		25	5.70	3		1	17.9	
		7	M		25	52.93			1	16.5	
		10	R		25	5.93			1	17.8	
		, 16	S		25	52.58			1	17.1	
106	5 Librae	June 9	R	14	33	21.39		104	52	32.9	
107	36 Bootis ϵ	June 5	M	14	38	57.5		62	20	31.4	
		, 10	R		38	57.63			20	31.7	
		19	S		38	57.59			20	33.6	
108	9 Librae α^2	May 31	P	14	43	14.70		105	27	59.0	
		June 7	M		43	11.53	6		27	56.7	
109	7 Ursae Minoris β	June 19	S	14	51	8.89		15	16	51.9	
		July 8	S		51	8.13			16	50.1	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
110	43 Bootis ψ	June 2	P	14	58	31.97	6	62	30	46.1	
		3	M		58	31.96	6		30	46.7	
		4	M		58	32.16	5		30	46.2	
111	24 Libræ ϵ	June 9	R	15	4	21.54	6	109	16	1.9	
		10	R		4	21.50			16	1.3	
112	111 R P L	June 5	M	15	5	58.16	5	5	30	59.3	
		19	S		5	58.05	5		31	0.7	
113	27 Libræ β	May 31	P	15	9	34.93		98	52	18.7	
		June 16	S		9	34.81			52	18.1	
		21	S		9	34.90			52	16.1	
114	32 Libræ γ	June 9	R	15	20	28.60	6	106	13	57.4	
		10	R		20	28.60			13	57.1	
115	114 R P I γ	Dec 2	M	15	23	16.62	1	2	14	37.9	
116	5 Coronæ Borealis α	May 31	P	15	28	50.84	6	62	49	9.1	
		June 4	M		28	50.72			49	10.0	
		12	R		28	50.70			49	7.2	
		16	S		28	50.88			49	7.4	
		21	S		28	50.64			49	8.7	
		July 1	R		20	50.68			49	7.4	
117	21 Serpentis α	May 31	P	15	37	28.38	6	83	8	17.6	
		July 8	S		37	28.11	6		8	15.2	
118	115 R I L	June 5	M	15	49	0.57	5	4	43	35.0	
119	16 Ursa Minoris γ	July 22	M	15	19	4.15		11	46	58.0	
120	7 Scorpii δ	July 6	S	15	52	10.41		112	13	32.7	
121	6 Scorpii β	June 1	M	15	57	24.94		109	25	29.6	
		9	R		57	25.00			25	28.6	
		10	R		57	25.01			25	29.1	
		19	S		57	24.94	6		25	29.8	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
121	8 Scorpi β^1	July 1	R	15	57	25 01		109	25	28 7	
		5	S		57	25 17	5		25	29 5	
		16	R		57	25 01	5		25	29 6	
		18	R		57	24 96			25	28 9	
		23	M		57	24 91			25	28 5	
		24	M		57	24 97			25	29 5	
		25	M		57	24 99			25	28 7	
		26	M		57	24 90			25	29 1	
		26	S		57	25 06	5		25	29 3	
122	1 Ophiuchi δ	June 9	R	16	7	6 90		93	20	13 0	
123	21 Scorpi α	June 10	R	16	20	57 06	1	116	7	21 3	
		12	R		20	57 00			7	19 5	
		13	L		20	56 93			7	20 7	
		July 15	R		20	56 98			7	20 8	
		18	R		20	57 05			7	21 3	
		26	M		20	56 94			7	21 1	
		30	S		20	56 99			7	20 9	
		Aug 5	M		20	57 03			7	19 0	
124	8 Ophiuchi γ 3	Aug 2	S	16	26	15 95		106	52	31	
125	40 Hercules ζ	July 12	S	16	36	1 97		58	5	15 1	
		15	R		36	5 09			8	13 9	
		16	L		36	5 07			5	11 5	
		22	M		36	5 10			8	11 1	
		23	M		36	5 04			5	13 6	
		25	M		36	5 1			8	13 7	
		, 26	M		36	5 08	1		5	11 5	
		, 28	S		36	1 97			8	13 0	
		30	S		36	5 06			5	13 8	
126	27 Ophiuchi κ	July 3	L	16	51	8 35	6	50	21	27 2	
		12	S		51	8 29			21	28 1	
		16	L		51	8 22			21	26 7	
		15	R		51	8 23			21	27 5	
		24	M		51	8 25	5		21	27 1	
		28	S		51	8 29			21	28 0	
		, 29	S		51	8 19			21	27 0	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
126	27 Ophiuchi κ	Aug 1	S	16	51	8 08		80	21	28 0	
		2	S		51	8 17			24	28 4	
127	R Ophiuchi Var 2	July 28	S	16	50	50 78		105	54	10 6	
		Aug 1	S		50	50 12			51	20 3	
		2	S		50	50 57			54	20 3	
128	22 Ursa Min ϵ s p	Dec 8	M	17	0	14 13	3	7	44	28 3	
		, 9	M		0	14 11	5		44	31 2	
129	64 Hercules α Var 1	July 3	P	17	8	21 41		75	26	8 3	
		12	S		8	21 31			26	57 2	
		22	M		8	21 26			26	58 6	
		29	S		8	21 39			26	58 8	
		31	S		8	21 20			26	58 2	
130	42 Ophiuchi θ	July 3	P	17	13	31 02	6	114	51	23 3	
		8	S		13	31 13			51	29 1	
		24	M		13	32 17			51	29 3	
		25	M		13	32 06			51	29 3	
131	45 Ophiuchi δ	July 8	S	17	18	32 50		119	44	17 8	
		Aug 5	M		18	32 71			44	16 3	
132	55 Ophiuchi α	June 13	R	17	28	31 77		77	20	14 0	
		July 4	R		28	31 67			20	12 6	
		19	R		28	31 71			20	12 5	
		22	M		28	31 82			20	12 5	
		23	M		28	31 56	6		20	13 1	
		26	M		28	31 84			20	12 7	
		31	S		28	31 77			20	12 9	
		Aug 2	S		28	31 68			20	12 3	
133	—Scorpi κ	July 25	M	17	32	56 56		128	57	16 7	
		, 29	S		32	56 60	5		57	16 5	
		31	S		32	56 44			57	16 3	
134		July 28	S	17	37	31 91	5	126	29	14 6	
		Aug 1	S		37	31 65			29	14 9	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wnes	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
135		Aug 2	S	17	39	35.46		127	14	31.4	
136	86 Hercules μ	June 21	S	17	41	35.7		62	11	47.7	
		July 19	R		41	34.7			11	48.5	
		22	M		41	33.4			11	46.3	
137	8282 Taylor	July 20	M	17	47	59.31		131	41	32.3	29
		29	S		47	59.18			41	31.1	
138	7499 Lacaille	Aug 1	S	17	48	6.97		129	4	38.1	
139	7504 Lacaille	July 23	M	17	48	23.61		129	6	45.2	
		Aug 2	S		48	23.75	5		6	47.4	
140	33 Draconis γ	June 21	S	17	53	21.35		38	29	38.2	
141	- Sagittarii γ^1	Aug 5	M	17	56	12.29		119	34	55.1	
142	8355 Taylor	July 12	S	17	56	51.22		133	25	37.6	
		, 28	S		56	51.11			25	38.1	
		, 29	S		56	51.17			25	38.7	
143		Aug 2	S	18	1	5.15	6	131	43	37.7	
		16	S		1	5.20			43	33.8	
144	13 Sagittarii μ	Sep 3	M	18	5	30.59		111	5	27.2	
145	7622 Lacaille	Aug 16	S	18	5	53.38	4	133	12	18.2	
146	7644 Lacaille	July 16	R	18	8	48.12	5	132	20	3.0	
147	8461 Taylor	Aug 16	S	18	14	18.10		134	9	26.8	
148	22 Sagittarii λ	Sep 3	M	18	19	27.12		115	29	37.1	
149		Aug 16	S	18	22	42.21		135	15	52.6	
150	3 Lyræ α	Aug 20	S	18	32	15.68		51	20	33.4	
		, 28	S		32	15.79			20	33.8	

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Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
151		Aug 1	S	18	30	26 76		136	44	13 4	
		16	S		35	26 62			44	13 5	
152		Aug 22	S	18	35	39 84		137	11	6 6	7 5
153	R Scuti Var 1	Aug 13	M	18	40	6 79		95	51	1 3	
		14	M		40	6 73			51	0 5	
154	7872 Lacaille	Aug 22	S	18	42	11 14	5	136	45	9 1	
155	7878 Lacaille	Aug 16	S	18	42	41 15	4	136	44	45 1	
156	10 Lyræ β Var 1	July 29	S	18	44	59 01		56	47	45 2	
		Aug 1	S		44	59 12			47	44 3	
		2	S		44	59 15			47	43 7	
		20	S		44	59 12	4		47	44 8	
		, 23	S		11	59 06			47	43 3	
157	13 Lyræ Var 2	Aug 1	S	18	51	8 07		46	14	2 6	
		, 2	S		51	7 97			14	3 1	
		, 20	S		51	8 41			14	3 9	
158	17 Aquilæ γ	July 23	M	18	59	4 12		76	20	19 6	
		Aug 13	M		59	3 92			20	21 8	
		14	M		59	4 04			20	21 1	
		21	S		59	3 95	6		20	21 3	
		, 23	S		59	3 96			20	19 4	
159	41 Sagittari π	Sep 3	M	19	1	33 07	3	111	14	22 0	
160		Aug 23	S	19	8	9 62	6	129	49	15 9	9 0
161		Aug 2	S	19	9	59 71		123	31	8 8	
		13	M		9	59 72			31	9 6	
		, 14	M		9	59 74	6		31	7 9	
162	25 Aquilæ ω	Aug 16	S	19	11	20 11		78	39	3 3	
		, 21	S		11	20 20			39	3 4	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
163	44 Sagittarii ρ^1	Sep 3	M	19	13	39.87		108	6	13.0	
164		Aug 23	S	19	16	26.29		129	53 04		7.5
165	30 Aquilæ δ	July 29	S	19	18	32.33		87	9	26.7	
		Aug 16	S		18	32.30			9	26.7	
		22	S		18	32.36			9	26.8	
166		Aug 23	S	19	21	47.69		129	56	11.3	8.5
167	51 Sagittarii h^1	Sep 5	M	19	27	39.72		115	1	4.1	
168	52 Sagittarii h^1	Aug 13	M	19	28	13.17		115	11	4.3	
		14	M		28	18.27			11	4.9	
		16	S		28	18.41			11	4.7	
169		Aug 22	S	19	34	13.31		127	17	18.3	
170	50 Aquilæ γ	July 12	S	19	39	41.76		79	43	14.8	
		Scp 5	M		39	41.74			43	14.4	
171		Aug 2	S	19	43	56.87		122	19	35.3	
		13	M		43	56.61			19	35.8	
172	53 Aquilæ α	Aug 20	S	19	44	3.06	5	81	29	36.0	
		22	S		44	2.81			29	36.3	
173	60 Aquilæ β	Aug 21	S	19	48	31.99		83	56	7.5	
		, 22	S		48	32.05	5		56	6.6	
174	9208 Taylor	July 12	S	19	55	34.13		122	26	25.3	
		28	S		55	34.13			26	24.9	
		Aug 1	S		55	34.04			26	25.0	
175	5 Capricorni α^1	Sep 5	M	20	9	59.76		102	55	54.8	
176	6 Capricorni α^2	Aug 1	S	20	10	23.73		102	58	11.6	
		Sep 3	M		10	23.63			58	11.1	
		30	M		10	23.62			58	12.5	

at 59.0

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
177	39095 Lalande	Aug 1	S	20	14	31.32	4	106	15	51.3	8.0
		16	S		14	34.03			15	50.9	
		20	S		14	34.14			15	51.9	
178		Aug 23	S	20	16	43.30	4	121	12	10.2	8.5
179	11 Capricorni ρ	July 12	S	20	20	59.12	6	108	16	1.7	
		Aug 12	M		20	58.99			16	2.6	
		Scp 5	M		20	59.02			16	1.5	
		30	M		20	59.02			16	2.0	
180		Aug 23	S	20	26	13.37	5	121	13	3.2	8.0
181	14 Capricorni τ	Aug 1	S	20	31	33.07	5	105	26	10.2	
182		Aug 23	S	20	35	48.56	6	123	55	55.6	8.0
183	50 Cygni α	Aug 9	M	20	36	13.80	5	45	13	40.7	
		12	M		36	13.60			12	41.6	
		13	M		36	13.6			12	41.5	
		14	M		36	13.11			12	41.9	
		Scp 3	M		36	13.57			12	42.0	
184		Aug 23	S	20	13	29.30		124	53	32.5	8.0
185	32 Vulpeculi	Aug 12	M	20	13	10.74		62	27	57.2	
		18	S		13	10.75			27	56.3	
186		Aug 23	S	20	51	25.75		126	38	27.9	8.0
187	23 Capricorni θ	Aug 9	M	20	56	11.12		107	46	42.1	
188		Aug 23	S	20	59	31.54		129	1	55.3	8.5
189	13 Aquarii ν	July 12	S	21	2	4.37	5	101	55	12.9	
		Aug 20	S		2	1.49			55	42.2	
		Oct 3	S		2	1.36			55	41.6	
190	64 Cygni γ	Aug 18	S	21	7	3.75	5	60	20	15.7	
		Scp 29	M		7	3.77			20	16.2	
		" 30	M		7	3.60			20	16.3	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
					h	m	s					
190	64 Cygni γ	Oct	1	S	21	7	3 72		60	20	16 1	
			4	S		7	3 61			20	14 4	
191		Aug	23	S	21	10	53 55		129	32	20 0	8 0
192	22 Aquarii β	Sep	29	M	21	24	17 55		96	10	35 9	
			30	M	21		17 36			10	37 1	
		Oct	1	S	21		17 61			10	36 3	
			2	S	21		17 58			10	35 6	
193		July	12	S	21	29	47 10		98	20	56 7	
		Aug	18	S		29	17 26			26	00	
194	23 Aquarii δ	Aug	14	M	21	30	23 00	5	98	28	17 0	
		Sep	5	M		30	21 26			28	15 3	
195	8 Pegasi ϵ	Aug	18	S	21	37	21 10		80	45	21 6	
		Oct	1	S		37	21 35			45	21 6	
			3	S		37	21 19			45	22 1	
			4	S		37	21 46			45	21 5	
			6	S		37	21 39			45	20 5	
196	49 Capricorni δ	Sep	5	M	21	39	25 10		106	45	5 5	
197	16 Pegasi	Sep	22	S	21	46	17 15		61	43	23 1	
			29	M		46	46 91			43	23 1	
		Oct	6	S	46		48 06			13	19 6	
			11	S	46		47 23			43	22 0	
			13	S	46		47 12			43	21 8	
			11	S	46		47 15			43	23 2	
198	31 Aquarii α	Oct	4	S	21	56	10 36		92	49	12 8	
199	34 Aquarii α	Aug	9	M	21	58	41 63	5	90	59	10 1	
		Sep	17	M		58	41 16			59	20 4	
			21	M		58	41 57			59	20 6	
			26	M		58	41 61			59	22 2	
			27	M		58	11 68			59	20 9	
		Oct	7	S		58	41 55			59	18 8	
			14	S		58	41 53			59	20 2	

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Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862	No of Wires	Mean Polar Distance 188°	Magnitude
				<i>h m s</i>			
200	43 Aquarii θ	Aug 25	S	22 9 33.11	5	98 28 7.9	
		Sep 12	R	9 32.81		28 7.3	
		Oct 3	S	9 32.90		28 8.6	
		17	R	9 32.94		28 10.3	
		Nov 14	M	9 32.95		26 7.5	
201	55 Aquarii ζ	Nov 1	M	22 21 43.40		90 13 28.1	
202		Aug 18	S	22 21 15.17		100 38 23.6	
		25	S	21 11.56		38 23.2	
203	150 R P L	Sep 6	R	22 23 45.91	5	4 35 18.1	
		30	M	23 45.86	7	35 20.5	
		Oct 2	S	23 15.11	5	35 18.6	
		7	S	23 15.19	5	35 17.1	
		13	S	23 16.07	3	35 19.3	
		15	S	23 45.51	5	35 20.1	
		16	R	23 45.75	3	35 19.2	
		Nov 13	M	23 45.60	3	35 19.9	
204	62 Aquarii η	Aug 27	S	22 28 15.83	5	90 19 39.2	
		Sep 8	R	28 15.61	5	49 39.7	
		" 17	M	28 15.84		49 40.2	
		23	M	28 15.88		49 41.7	
		" 21	M	28 15.87		49 40.5	
		26	M	28 15.87		49 40.9	
		27	M	28 15.96		49 42.0	
		Oct 3	S	28 15.1		49 39.6	
		4	S	28 15.91		49 40.2	
		17	R	28 15.83		49 40.5	
		18	R	28 15.61		49 40.2	
		21	R	28 15.57		49 40.6	
		" 23	R	28 15.50		49 40.2	
		Nov 1	M	28 15.86		49 40.4	
		14	M	28 15.67		49 40.1	
		15	M	28 15.81		49 38.6	
205	153 R P L	Nov 3	M	22 29 50.43	3	2 37 14.7	
		4	M	29 50.33	3	37 13.8	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wires	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
205	153 R P L	Nov 5	M	22	29	50 40	3	2	37	15 1	
		6	M		29	50 70	2		37	14 6	
		11	M		29	50 96	3		37	14 1	
206	42 Pegasi γ	Aug 25	S	22	34	31 76		79	55	15 8	
		27	S		34	31 54			53	16 6	
		Sep 16	M		34	31 69			53	16 5	
		27	M		34	31 75			53	17 7	
		Oct 7	S		34	34 90			53	15 0	
		11	S		34	34 60			53	17 7	
		13	S		34	31 81	5		53	16 8	
		15	S		34	31 69			53	17 5	
		16	I		34	31 75			53	17 6	
		Nov 15	M		34	31 77			53	15 0	
207	XXII 844 W B E	Oct 17	R	22	40	28 04		87	49	19 8	7 5
208	24 Piscis Australis α	Sep 10	R	22	50	1 15	5	120	21	11 1	
		16	M		50	0 99			21	9 5	
		17	M		50	1 13			21	11 4	
		23	M		50	1 00			21	10 8	
		27	M		50	1 01			21	11 2	
		Oct 2	S		50	0 94	6		21	9 0	
		15	S		50	0 91			21	9 3	
		16	L		50	0 98			21	10 2	
		18	L		50	1 02			21	10 4	
		23	R		50	1 01			21	10 3	
		24	R		50	1 03			21	9 7	
		25	R		50	0 97			21	9 6	
		Nov 6	M		50	1 06			21	9 0	
209		Sep 24	M	22	51	14 47		85	27	5 7	
210	4 Piscum β	Sep 9	P	22	56	51 24		86	55	19 5	
		Oct 4	S		56	51 08			55	20 2	
211	53 Pegasi β	Nov 7	M	22	57	5 33		62	39	53 5	
212	54 Pegasi α	Aug 25	S	22	57	53 00		75	32	11 2	
		26	S		57	53 26			32	10 5	

Separate Results of Madras Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862			No of Wines	Mean Polar Distance 1862			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
212	54 Pegasi α	Aug 27	S	22	57	53.11		75	32	11.4	
		Sep 22	S		57	53.34			32	14.0	
		23	M		57	53.17			32	11.3	
		26	M		57	53.28			32	13.4	
		Oct 2	S		57	53.20			32	11.5	
		13	S		57	53.13			32	12.2	
		14	S		57	53.26	5		32	12.9	
		15	S		57	53.33			32	12.7	
		16	R		57	53.26			32	12.2	
		17	R		57	53.26			32	12.2	
		18	R		7	53.28			32	12.3	
		20	R		57	53.29			32	13.3	
		21	R		57	53.23	5		32	12.1	
		25	R		7	53.29			32	11.5	
213	6 Piscium γ	Sep 6	L	23	10	06.5		87	28	16.7	
		8	L		10	06.7	1		28	15.4	
		9	R		10	07.1			28	16.5	
		18	M		10	06.1			28	15.7	
		20	M		10	05.3	4		28	16.7	
		21	M		10	06.5			28	16.6	
		26	M		10	06.2			28	17.1	
		27	M		10	06.3			28	17.3	
		Oct 7	S		10	05.9			28	14.8	
		20	I		10	06.7			28	16.6	
		28	R		10	06.8			28	15.2	
		Nov 1	M		10	06.9			28	15.8	
		5	M		10	06.7			28	15.9	
		11	M		10	06.5			28	15.6	
		12	M		10	06.7			28	16.7	
		13	M		10	07.0			28	16.9	
		14	M		10	07.1			28	15.2	
		15	M		10	06.6			28	15.5	
214		Oct 13	S	23	10	59.17 ⁴³	5	127	25	13.4	90
215		Oct 6	S	23	11	30.98		129	58	31.4	80
216		Oct 14	S	23	12	6.44		127	25	28.9	80

Separate Results of Machas Meridian Circle Observations in 1862

Number	Star	Date of Observation		Observer	Mean Right Ascension 1862			No of Wines	Mean Polar Distance 1862			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
217	8 Piscium κ	Sep	5	M	23	19	51 54	2	89	29	58 8	
			6	R		19	51 50			29	58 6	
			16	M		19	51 51			29	58 6	
			18	M		19	51 11			29	50 1	
		Oct	20	R		19	51 17			29	58 9	
			25	R		19	51 50			29	58 2	
		Nov	1	M		19	51 46			29	58 6	
			3	M		19	51 50			29	58 9	
			5	M		19	51 12			29	58 8	
			7	M		19	51 52			29	57 9	
			14	M		19	51 39			29	58 8	
			15	M		19	51 10			29	56 9	
218	10 Piscium θ	Aug	12	M	23	20	55 00		91	22	42 0	
219	158 R P L	Sep	30	M	23	27	40 73	7	3	27	15 3	
		Oct	28	R		27	50 70	3		27	12 7	
220	17 Piscium ι	Aug	12	M	23	32	51 15		85	7	17 2	
		Sep	18	M		32	51 06			7	15 9	
		Oct	6	S		32	51 26			7	16 1	
			27	R		32	51 07			7	16 7	
			29	R		32	51 16			7	18 4	
		Nov	3	M		32	51 19			7	16 3	
			4	M		32	51 15			7	16 4	
			6	M		32	51 20			7	16 2	
			7	M		32	51 21			7	15 7	
		Dec	1	M		32	51 15			7	17 1	
221	9583 Lacaille	Nov	5	M	23	38	43 99	5	128	44	33 2	8 0
222		Oct	3	S	23	40	57 87	5	128	47	18 4	8 5
223	— Sculptoris δ	Sep	6	R	23	41	43 93		118	53	35 3	
			8	R		41	43 69			53	36 7	
		Oct	21	R		41	43 91			53	36 9	
			23	R		41	43 92			53	35 8	
			28	R		41	43 89			53	35 3	
		Nov	4	M		41	43 96			53	36 4	
			7	M		41	43 80			53	36 0	

Separate Results of Malpas Meridian Circle Observations in 1862

Number	Star	Date of Observation	Observer	Mean Right Ascension 1862	No of Wires	Mean Polar Distance 1862	Magnitude
				<i>h m s</i>		<i>°</i>	
224		Oct 27	R	23 41 51.93		142 5 4.1	8.5
225	R Cassiopeiæ γ 3	Oct 28	R	23 51 24.51		39 22 49.6	6.5
		Nov 5	M	51 21.88		22 18.0	6.0
226		Oct 27	R	23 51 52.91	1	143 16 38.8	9.5
227	28 Piscium ω	Sep 8	R	23 52 13.51		83 51 2.5	
		9	R	52 13.58	5	54 3.6	
		Oct 8	S	52 13.56		54 0.4	
		, 21	R	52 13.55		54 2.6	
		Nov 1	M	52 13.54		51 2.4	
		, 3	M	52 13.56		54 1.9	
		, 6	M	52 13.50	5	54 2.0	
		, 11	M	52 13.56		54 1.4	
		, 13	M	52 13.55		54 2.9	

MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1863

REDUCED TO JANUARY 1 OF THAT YEAR

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>	<i>°</i>				
1	21 Andromedæ α	20		0	1	15 53	61	40	18 5	4	0 71
2	47374 Lalande	70		0	2	51 10	93	19	45 5	4	0 81
3	88 Pegasi γ	27		0	6	7 92	75	35	2 1	2	0 81
4	48 Taylor	65		0	10	42 52	89	4	43 7	18	0 78
5	41 Piscum δ	60		0	13	29 88	82	34	34 3	5	0 73
6	44 Piscum	60		0	18	19 73	88	49	29 2	11	0 77
7	12 Ceti	57		0	22	59 76	94	43	13 7	5	0 82
8	670 Lalande	70	2	0	23	3 04	85	54	13 7	12	0 75
9		90	3	0	28	47 55	89	8	14 0	3	0 87
10	15 Ceti	75		0	31	1 16	91	15	47 0	4	0 75
11	1097 Lalande	80	4	0	31	29 73	89	0	35 8	4	0 87
12	1123 Lalande	85	1	0	35	35 78	89	3	40 8	2	0 89
13	16 Ceti β	20		0	36	39 58	108	44	40 5	5	0 77
14	1198 Lalande	85	1	0	38	0 50	88	56	56 2	1	0 95
15	60 Piscum	65		0	40	15 45	84	0	46 7	4	0 75
16	235 Taylor	65		0	41	8 82	85	25	47 2	4	0 82
17	63 Piscum δ	49		0	41	31 47	83	10	0 2	11	0 73
18		92	3	0	41	33 94	89	7	14 5	3	0 85
19	20 Ceti	53		0	45	57 31	91	53	40 5	14	0 74
20	0 806 W B E	100	2	0	46	33 72	88	50	25 2	3	0 63
21	2 Ursæ Minoris	44		0	50	30 17	4	29	9 4	1	0 60
22	1638 Lalande	76	3	0	50	34 36	88	57	43 7	3	0 81
23	1639 Lalande	85	2	0	50	36 18	88	39	12 9	3	0 66
24	1784 Lalande	80	2	0	54	52 79	88	13	7 7	3	0 86
25	71 Piscum ϵ	46		0	55	47 00	82	51	13 0	4	0 72
26	26 Ceti)	60		0	56	42 92	89	22	26 3	16	0 75
27	1879 Lalande	76	3	0	57	37 75	88	25	33 9	3	0 84
28	0 1031 W B E	90	3	0	59	1 78	88	6	27 7	3	0 89
29	29 Ceti	70	1	1	0	52 74	88	43	46 6	2	0 92
30	80 Piscum ϵ	58		1	1	15 77	85	4	52 6	17	0 72
31	1 15 W B E	90	1	1	2	53 51	87	39	17 6	1	0 86
32	2089 Lalande	84	3	1	3	21 21	88	10	53 2	3	0 85
33	33 Ceti	63		1	3	27 56	88	17	23 6	3	0 84
34	1 101 W B E	90	3	1	7	39 67	87	54	36 7	3	0 86
35		100	2	1	9	9 95	87	42	42 8	3	0 86

1—Alpherat

3—Algenib

9 11 12 14 18 20 22, 23 24 27 28 31 32 33, 34, 35 Comparison Stars used with Mars in opposition,
for investigation of the Constant of Solar Parallax

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s		"		
1	21 Andromedæ α	+ 3 0760	+ 0 0182	+ 0 009	- 20 056	+ 0 013	+ 0 15	1
2	47371 Lalande	+ 3 0711	+ 0 0004		- 20 053	+ 0 015		
3	88 Pegasi γ	+ 3 0311	+ 0 0100	0 000	- 20 049	+ 0 022	+ 0 02	26
4	48 Taylo	+ 3 0730	+ 0 0030		- 20 034	+ 0 030		57
5	41 Piscum d	+ 3 0823	+ 0 0066	- 0 002	- 20 020	+ 0 036	- 0 01	66
6	44 Piscum	+ 3 0743	+ 0 0035	- 0 002	- 19 991	+ 0 045	+ 0 02	87
7	12 Ceti	+ 3 0609	+ 0 0008	- 0 002	- 19 955	+ 0 055	+ 0 01	112
8	670 Lalande	+ 3 0616	+ 0 0054		- 19 954	+ 0 054		113
9		+ 3 0716	+ 0 0039		- 19 897	+ 0 065		
10	15 Ceti	+ 3 0681	+ 0 0029		- 19 872	+ 0 069		163
11	1097 Lalande	+ 3 0755	+ 0 0043		- 19 823	+ 0 076		
12	1123 Lalande	+ 3 0755	+ 0 0044		- 19 814	+ 0 079		
13	16 Ceti β	+ 2 9997	- 0 0055	+ 0 013	- 19 790	+ 0 080	- 0 02	196
14	1198 Lalande	+ 3 0761	+ 0 0045		- 19 779	+ 0 083		
15	60 Piscum	+ 3 0966	+ 0 0063		- 19 746	+ 0 087		216
16	235 Taylo	+ 3 0912	+ 0 0066		- 19 733	+ 0 089		
17	63 Piscum α	+ 3 1009	+ 0 0079	+ 0 003	- 19 727	+ 0 090	+ 0 05	222
18		+ 3 0758	+ 0 0047		- 19 727	+ 0 089		
19	20 Ceti	+ 3 0633	+ 0 0034	- 0 004	- 19 653	+ 0 097	+ 0 01	242
20	0 806 W B E	+ 3 0775	+ 0 0051		- 19 643	+ 0 099		
21	2 Ursæ Minoris	+ 3 0797	+ 1 2756	+ 0 005	- 19 570	+ 0 225	+ 0 01	262
22	1638 Lalande	+ 3 0773	+ 0 0052		- 19 569	+ 0 107		
23	1639 Lalande	+ 3 0789	+ 0 0054		- 19 568	+ 0 107		
24	1784 Lalande	+ 3 0819	+ 0 0053		- 19 482	+ 0 115		
25	71 Piscum ϵ	+ 3 1124	+ 0 0087	- 0 002	- 19 464	+ 0 119	0 00	288
26	26 Ceti	+ 3 0757	+ 0 0053		- 19 444	+ 0 118		295
27	1879 Lalande	+ 3 0812	+ 0 0053		- 19 424	+ 0 120		
28	0 1031 W B E	+ 3 0833	+ 0 0061		- 19 394	+ 0 123		
29	29 Ceti	+ 3 0799	+ 0 0053		- 19 352	+ 0 126		324
30	80 Piscum ϵ	+ 3 1025	+ 0 0077	- 0 021	- 19 343	+ 0 128	+ 0 19	328
31	1 15 W B E	+ 3 0869	+ 0 0065		- 19 304	+ 0 130		
32	2089 Lalande	+ 3 0836	+ 0 0062		- 19 294	+ 0 131		
33	33 Ceti	+ 3 0830	+ 0 0062	- 0 003	- 19 292	+ 0 131	+ 0 02	344
34	1 101 W B E	+ 3 0862	+ 0 0066		- 19 187	+ 0 139		
35		+ 3 0879	+ 0 0068		- 19 140	+ 0 142		

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Est n at ons	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
36	89 Piscium <i>f</i>	60		1	10	40 96	87	6	47 5	13	0 77
37	43 Ceti	65		1	15	31 44	91	10	21 1	8	0 77
38	45 Ceti θ	46		1	17	7 40	98	55	47 6	4	0 86
39	93 Piscium <i>p</i>	50		1	15	49 25	71	32	40 3	1	0 77
40	465 Taylor	70	1	1	19	23 61	91	7	28	3	0 84
41	98 Piscium μ	50		1	22	57 40	84	34	7 6	7	0 69
42	99 Piscium η	47		1	24	6 16	75	22	0 7	7	0 79
43	514 Taylor	60	2	1	28	27 04	73	16	27 3	2	0 92
44	106 Piscium ν	46		1	34	15 12	85	12	43 7	22	0 73
45	590 Taylor	70		1	41	17 19	87	0	18 3	4	0 70
46	111 Piscium	55		1	16	24 71	87	29	43 4	5	0 70
47	6 Arctis β	20		1	47	1 30	69	52	6 3	15	0 80
48	13 Arctis α	20		1	59	23 95	67	11	31 7	11	0 84
49	21 Arctis	67	2	2	7	53 29	65	35	55 3	3	0 90
50	67 Ceti	61		2	10	6 01	97	3	36 0	6	0 89
51	22 Arctis θ	59		2	10	27 15	70	41	20 3	1	0 77
52	68 Ceti o Val 1	57	2	2	12	22 52	93	36	22 1	3	0 83
53	73 Ceti ξ	44		2	20	49 52	82	9	38 1	6	0 89
54	26 R P L	80		2	21	57 59	3	33	29 5	3	0 86
55	31 Arctis	55		2	29	6 59	79	9	11 1	2	0 92
56	32 Arctis ν	60		2	30	59 20	65	35	16 1	1	0 69
57	86 Ceti γ	40		2	56	9 11	87	20	52 1	1	0 91
58	42 Arctis π	57		2	41	35 56	7	6	15 1	1	0 69
59	48 Arctis ϵ	53		2	51	19 59	69	12	50 5	2	0 81
60	92 Ceti α	23		2	55	4 01	56	27	14 0	2	0 88
61	33 R P L	57		3	0	16 90	5	35	17 2	2	0 92
62	57 Arctis σ	11		3	3	41 61	70	47	53 6	2	0 85
63	53 Arctis ζ	53		3	6	58 39	69	58	11 3	2	0 92
64		80	1	5	12	18 91	130	58	40 2	1	0 91
65	33 Piscis α	26		3	11	29 21	40	58	1 7	1	0 91
66	17 Tauri	10		3	56	11 23	66	19	25	2	0 85
67		50	1	3	38	1 93	136	13	1 7	1	0 91
68	25 Tauri η	37		3	39	17 10	66	19	29 5		0 92
69	34 Thidani γ	35		5	51	35 46	103	51	11 5	2	0 92
70		100	1	3	53	0 15	128	25	41 5	1	0 91

52—Mira Ceti Val 1—Period 331 days—Range 2nd to 0th magnitude
 66—Electra
 68—Alcyon

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
36	59 Piscium <i>f</i>	+ 3 0921	+ 0 0072	- 0 000	- 19 109	+ 0 146	+ 0 02	388
37	43 Ceti	+ 3 0632	+ 0 0053		- 18 976	+ 0 153		406
38	40 Ceti θ	+ 3 0029	+ 0 0018	- 0 007	- 18 931	+ 0 151	+ 0 22	420
39	93 Piscium ρ	+ 3 2206	+ 0 0163		- 18 912	+ 0 160		427
40	465 Tylor	+ 3 0810	+ 0 0006		- 18 864	+ 0 161		433
41	98 Piscium μ	+ 3 1171	+ 0 0089	+ 0 019	- 18 755	+ 0 169	+ 0 18	448
42	99 Piscium η	+ 3 1973	+ 0 0112	0 000	- 18 720	+ 0 176	0 00	453
43	511 Tylor	+ 3 2235	+ 0 0151		- 18 680	+ 0 150		477
44	106 Piscium ν	+ 3 1167	+ 0 0091	- 0 004	- 18 383	+ 0 191	+ 0 04	515
45	590 Tylor	+ 3 1020	+ 0 0063		- 18 128	+ 0 202		551
46	111 Piscium	+ 3 0953	+ 0 0083	- 0 002	- 17 931	+ 0 210	+ 0 08	74
47	6 Arctis β	+ 3 2926	+ 0 0153	+ 0 002	- 17 905	+ 0 226	+ 0 11	577
48	13 Arctis α	+ 3 15	+ 0 0203	+ 0 012	- 17 395	+ 0 252	+ 0 15	618
49	21 Arctis	+ 3 3902	+ 0 0210		- 17 013	+ 0 200		613
50	67 Ceti	+ 2 9620	+ 0 0049	+ 0 003	- 16 900	+ 0 212	+ 0 11	704
51	22 Arctis θ	+ 3 3222	+ 0 0179	- 0 002	- 16 910	+ 0 200	+ 0 01	707
52	65 Ceti o Var 1	+ 3 0260	+ 0 0061	- 0 003	- 16 801	+ 0 215	+ 0 23	720
53	73 Ceti	+ 3 1751	+ 0 0117	+ 0 001	- 16 387	+ 0 276	+ 0 02	760
54	26 R P L	+ 10 5555	+ 3 5726		- 16 329	+ 1 321		
55	31 Arctis	+ 3 2119	+ 0 0137		- 15 955	+ 0 291		795
56	32 Arctis ν	+ 3 3922	+ 0 0193	- 0 002	- 15 855	+ 0 310	+ 0 02	806
57	56 Ceti γ	+ 3 1110	+ 0 0091	- 0 011	- 15 578	+ 0 291	+ 0 19	837
58	42 Arctis π	+ 3 3351	+ 0 0163	- 0 002	- 15 273	+ 0 322	- 0 02	870
59	48 Arctis ϵ	+ 3 4170	+ 0 0195	- 0 001	- 14 711	+ 0 313	+ 0 02	921
60	92 Ceti α	+ 3 1292	+ 0 0095	- 0 002	- 14 153	+ 0 320	+ 0 11	911
61	33 P I I	+ 12 7101	+ 1 5752	0 000	- 14 161	+ 1 32	+ 0 05	960
62	57 Arctis δ	+ 3 4066	+ 0 0171	+ 0 010	- 13 915	+ 0 301	+ 0 00	956
63	58 Arctis ζ	+ 3 1922	+ 0 0176	- 0 006	- 13 680	+ 0 273	+ 0 07	999
64		+ 2 2050	+ 0 0011		- 13 395	+ 0 216		
65	33 Piscium α	+ 4 2110	+ 0 0163	+ 0 002	- 13 229	+ 0 17	+ 0 05	1043
66	17 Lami	+ 3 5171	+ 0 0150	0 000	- 11 710	+ 0 421	+ 0 01	1147
67		+ 1 5360	+ 0 0014		- 11 610	+ 0 223		
68	25 Lami η	+ 3 5511	+ 0 0177	- 0 001	- 11 555	+ 0 130	+ 0 06	1166
69	34 Eridani γ^1	+ 2 7916	+ 0 0017	+ 0 002	- 10 857	+ 0 350	+ 0 12	1231
70		+ 2 1696	+ 0 0030		- 10 563	+ 0 271		

52 Proper motion adopted from the British Association Catalogue
 53 Proper motion deduced from the Nautical Almanac for 1862

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
71	35 Tauri λ Var 1	15	1	3	53	2 16	77	54	105	1	090
72	37 Tauri A ¹	47		3	56	32 17	68	17	557	2	092
73		90		4	3	39 17	146	56	474	1	091
74	71 Tauri ϵ	37		4	20	33 75	71	7	453	4	089
75	67 Tauri α	10		1	8	0 29	73	46	185	1	093
76	3 Aurigae	10	1	4	18	0 67	57	3	215	2	091
77	109 Tauri η	60		5	10	59 17	68	3	01	1	093
78	112 Tauri β	20		5	17	51 20	61	30	190	2	080
79	10 R P L	62		5	16	5 12	1	53	103	1	093
80	123 Tauri γ	10		5	29	23 90	68	56	482	1	085
81		95		5	49	21 27	63	50	159	1	093
82	43 R P I	66		5	51	7 35	3	14	230	1	091
83	13 Geminorum μ	34		6	14	56 60	67	25	97	1	091
84	24 Geminorum γ	26		6	29	41 37	73	29	126	2	094
85	68 Geminorum	54		7	25	43 71	73	52	503	1	091
86	81 Geminorum g	49		7	38	7 86	71	9	212	2	094
87	70 R P L	65		9	45	50 84	5	25	144	1	076
88	72 R P L	59		10	9	0 70	5	3	27	10	080
89	79 R P L	77		10	51	55 00	1	36	451	1	052
90	69 R P L	63		11	57	44 99	3	38	530	3	082
91	2 Corvi ϵ	30		12	3	1 52	111	51	83	3	013
92	92 R P I	67		12	12	50 01	2	47	495	1	087
93	93 R P L	65		12	11	20 31	1	32	76	1	051
94	21 Virginis q	60		12	26	39 19	98	41	260	1	013
95	9 Corvi β	23		12	27	5 56	112	35	06	3	012
96	67 Virginis α	10		13	17	55 63	100	26	259	2	017
97	108 R I L	73		13	20	55 75 56 74	4	31	287	1	085
98	79 Virginis γ	41		13	27	39 61	59	53	226	2	013
99	55 Ursae Majoris η	23		13	42	6 02	39	58	497	1	044
100	9 Bootis η	30		13	45	6 75	70	51	330	2	043
101	93 Virginis τ	13		13	51	37 51	87	47	104	1	015
102	108 R P L	73		14	4	11 79	3	31	512	1	043
103	16 Bootis α	10		14	9	27 03	70	5	518	4	015
104	100 Virginis λ	53		14	11	36 72	102	14	24	1	014
105	25 Bootis ρ	40		14	25	52 89	59	1	177	5	013

71 — λ Tauri Var 1 — Period 395 days — Range 34 to 43 magnitude

75 — Aldebaran

96 — Spica

103 — Alecturus

81 — Shown in mistake for the planet Uranus

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
71	35 Luni λ ν 1	+ 3 3158	+ 0 0115		- 10 550	+ 0 416		1241
72	37 Tauri A ¹	+ 3 5298	+ 0 0153	+ 0 004	- 10 988	+ 0 416	+ 0 09	1257
73		+ 1 2763	+ 0 0290		- 9 719	+ 0 167		
74	74 Tauri ϵ	+ 3 4566	+ 0 0120	+ 0 005	- 8 439	+ 0 468	+ 0 03	1376
75	87 Tauri α	+ 3 4302	+ 0 0097	+ 0 004	- 7 586	+ 0 464	+ 0 17	1120
76	3 Aurigae	+ 3 3959	+ 0 0144	- 0 003	- 6 197	+ 0 514	+ 0 09	1520
77	109 Tauri μ	+ 3 3986	+ 0 0078	+ 0 001	- 4 955	+ 0 468	- 0 06	1637
78	112 Luni β	+ 3 7851	+ 0 0082	+ 0 003	- 693	+ 0 515	+ 0 20	1681
79	40 R P L	+ 15 1530	+ 0 6965		- 3 613	+ 2 619		1662
80	123 Luni 5	+ 3 5622	+ 0 0055	0 000	- 2 671	+ 0 519	+ 0 06	1767
81		+ 3 7253	+ 0 0031		- 0 930	+ 0 513		
82	13 L I I	+ 26 6712	+ 0 3267		- 0 777	+ 3 488		1579
83	13 Gemmae μ	+ 3 6768	- 0 0003	+ 0 005	+ 1 979	+ 0 577	+ 0 14	2047
84	21 Gemmae γ	+ 3 1650	- 0 0015	+ 0 001	+ 2 95	+ 0 500	+ 0 01	2103
85	66 Gemmae	+ 3 4317	- 0 0066	- 0 004	+ 7 329	+ 0 463	0 00	2186
86	51 Gemmae γ	+ 3 1922	- 0 0056	- 0 008	+ 5 325	+ 0 169	+ 0 05	2556
87	70 R P L	+ 0 8515	+ 1 5994		+ 16 720	+ 0 567		
88	72 R P L	+ 10 1116	- 1 6770	- 0 079	+ 17 711	+ 0 677	+ 0 06	3195
89	79 R P L	+ 16 3813	- 9 8553		+ 19 251	+ 0 662		
90	89 R P I	+ 3 2779	- 0 5296		+ 90 055	- 0 004		1070
91	2 Corvi ϵ	+ 3 0791	+ 0 0112	- 0 005	+ 20 054	- 0 016	- 0 01	1097
92	92 R P I	+ 1 5196	+ 0 0007	+ 0 115	+ 20 04	- 0 022	+ 0 05	4150
93	93 R P I	- 0 0472	+ 1 1509	- 0 152	+ 20 016	- 0 009	- 0 07	1165
94	21 Virginis η	+ 3 0958	+ 0 0050	- 0 009	+ 19 920	- 0 062	0 00	4230
95	9 Corvi β	+ 3 1379	+ 0 0165	- 0 008	+ 19 915	- 0 061	+ 0 07	1231
96	67 Virginis α	+ 3 1513	+ 0 0100	- 0 005	+ 18 905	- 0 113	+ 0 01	4480
97	103 R I L	- 2 7310	+ 0 9931		+ 14 556	+ 0 179		1198
98	79 Virginis 3	+ 0 710	+ 0 0064	- 0 019	+ 18 606	- 0 176	- 0 06	1532
99	85 Uis M η η	+ 2 3522	- 0 0103	- 0 012	+ 18 098	- 0 169	+ 0 03	4607
100	8 Bootis η	+ 2 5617	- 0 0006	- 0 004	+ 17 866	- 0 199	+ 0 36	1648
101	93 Virginis τ	+ 3 0472	+ 0 0064	+ 0 001	+ 17 599	- 0 222	+ 0 07	1672
102	106 R P I	- 7 9419	+ 2 5361		+ 17 182	+ 0 591		
103	16 Bootis α	+ 2 8130	+ 0 0004	- 0 079	+ 16 914	- 0 227	+ 1 93	4720
104	100 Virginis λ	+ 3 2362	+ 0 0140	- 0 002	+ 16 836	- 0 264	- 0 02	4743
105	25 Bootis ρ	+ 2 5944	- 0 0015	- 0 008	+ 16 127	- 0 233	- 0 14	4008

— + 0 575

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
106	5 Libræ	6.2		14	38	21.39	101	52	32.9	1	0.44
107	36 Bootis ϵ	2.3		14	38	57.60	62	20	33.2	3	0.14
108	9 Libræ α	3.7		14	43	14.77	105	27	57.9	2	0.42
109	7 Ursa Minoris β	2.8		14	51	8.66	15	16	51.0	2	0.49
110	43 Bootis ψ	5.0		14	58	32.03	62	30	46.3	3	0.42
111	24 Libræ ϵ	5.3		15	4	21.52	109	16	1.6	2	0.44
112	111 R. P. L.	6.9		15	5	58.11	5	31	0.0	2	0.44
113	27 Libræ β	2.0		15	9	31.85	98	52	17.1	3	0.45
114	32 Libræ ζ	5.7		15	20	28.65	106	13	57.1	2	0.41
115	114 R. P. L.	6.9		15	23	16.62	2	11	37.9	1	0.92
116	5 Corona Borealis α	2.0		15	25	50.78	62	19	8.3	6	0.15
117	21 Serpentis α	2.3		15	37	26.25	88	8	16.4	2	0.16
118	115 R. P. L.	6.9		15	49	0.57	4	43	35.0	1	0.43
119	16 Ursa Minoris ζ	4.0		15	49	1.15	11	46	58.0	1	0.55
120	7 Scorpii	4.0		15	52	10.41	112	13	32.7	1	0.57
121	8 Scorpii β^1	3.0		15	57	25.00	109	25	29.2	13	0.51
122	1 Ophiuchi θ	3.0		16	7	6.90	93	20	13.0	1	0.14
123	21 Scorpii α	1.3		16	20	57.00	116	7	20.7	8	0.52
124	5 Ophiuchi Var. 3			16	21	18.98	106	52	3.1	1	0.9
125	40 Hercules ζ	2.7		16	36	5.06	55	8	41.0	9	0.55
126	27 Ophiuchi κ	3.7		16	51	8.21	80	21	27.6	9	0.55
127	23 Ursa Minoris ϵ	4.1		17	0	11.52	7	44	31.3	2	0.91
128	R Ophiuchi Var. 2			16	59	50.59	105	54	20.1	3	0.56
129	61 Hercules α Var. 1	3.0		17	8	21.1	75	26	55.6	5	0.55
130	42 Ophiuchi θ	5.6		17	17	32.07	111	51	29.0	4	0.53
131	45 Ophiuchi d	5.0		17	15	2.65	119	41	17.1	2	0.55
132	55 Ophiuchi α	2.0		17	28	31.73	77	20	12.9	8	0.55
133	— Scorpii κ	2.3		17	32	56.53	126	57	16.5	3	0.57
134		8.5		17	37	31.76	126	21	14.9	2	0.56
135		8.0		17	9	35.46	127	11	31.1	1	0.56
136	56 Hercules μ	3.5		17	11	3.46	62	11	17.5	3	0.53
137	8282 Taylor	7.0	1	17	47	59.40	131	41	31.9	2	0.57
138	7499 Lacaille	7.0		17	48	6.97	129	4	36.1	1	0.55
139	7504 Lacaille	7.0		17	48	23.68	129	6	46.3	2	0.57
140	33 Draconis γ	2.3		17	53	24.35	38	29	38.2	1	0.47

107 — Minc

116 — Alpha

123 — Antares

121 — S Ophiuchi Var. 3 — Period 234 days — Range 9th magnitude to invisibility

127 — R Ophiuchi Var. 2 — Period 302 days — Range 7.5 magnitude to invisibility

129 — α Hercules Var. 1 — supposed to vary irregularly between 3rd and 4th magnitudes

134 135 138 139 Comparison stars for Donati's comet of 1856

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
106	5 Libræ	+ 3 2977	+ 0 0152	- 0 003	+ 15 456	- 0 314	+ 0 01	4868
107	36 Bootis ε	+ 2 6210	- 0 0001	- 0 005	+ 15 422	- 0 252	- 0 01	4876
108	9 Libræ α	+ 3 0137	+ 0 0151	- 0 007	+ 15 179	- 0 324	+ 0 06	4895
109	7 Urs Min β	- 0 2520	+ 0 1022	- 0 005	+ 11 719	+ 0 018	+ 0 03	4936
110	43 Bootis ψ	+ 2 5880	+ 0 0010	- 0 013	+ 14 267	- 0 232	0 00	4969
111	24 Libræ	+ 3 4087	+ 0 0171	- 0 002	+ 13 909	- 0 364	+ 0 04	4995
112	111 R P L	- 6 9685	+ 1 1915		+ 13 507	+ 0 731		5022
113	27 Libræ β	- 3 2256	+ 0 0117	- 0 009	+ 13 576	- 0 353	+ 0 01	5034
114	32 Libræ γ ¹	- 3 3707	+ 0 0146		+ 12 858	- 0 384		5089
115	114 R P L	- 23 3779	+ 7 8320		+ 12 671	+ 2 638		5140
116	5 Coronæ Bor α	+ 2 5291	+ 0 0023	+ 0 009	+ 12 269	- 0 297	+ 0 07	5143
117	24 Serpentis α	+ 2 9412	+ 0 0062	+ 0 009	+ 11 683	- 0 354	- 0 05	5196
118	115 R P L	- 8 1427	+ 1 0281		+ 10 348	+ 0 991		
119	16 Urs Min γ	- 2 3195	+ 0 2031	- 0 005	+ 10 515	+ 0 276	+ 0 08	5285
120	7 Scorpii δ	+ 3 5356	+ 0 0159	- 0 001	+ 10 611	- 0 443	- 0 01	5303
121	8 Scorpii β ¹	+ 3 1776	+ 0 0112	- 0 002	+ 10 293	- 0 441	+ 0 02	5399
122	1 Ophiuchi δ	+ 3 1406	+ 0 0051	- 0 006	+ 9 183	- 0 408	+ 0 13	5414
123	21 Scorpii α	+ 3 6672	+ 0 0150	- 0 001	+ 8 100	- 0 491	+ 0 03	5496
124	5 Ophiuchi Var 3	+ 3 1139	+ 0 0109		+ 7 972	- 0 464		
125	40 Hercules γ	+ 2 2962	+ 0 0033	- 0 034	+ 7 187	- 0 316	- 0 45	5604
126	27 Ophiuchi κ	+ 2 8561	+ 0 0013	- 0 022	+ 5 936	- 0 401	- 0 02	5708
127	18 Ophiuchi Var 2	+ 3 4400	+ 0 0077		+ 5 204	- 0 187		
128	22 Urs Min ε	- 6 4307	+ 0 3030	+ 0 009	+ 5 170	+ 0 904	- 0 01	5780
129	64 Hercules α Var 1	+ 2 7336	+ 0 0035	- 0 003	+ 4 181	- 0 391	- 0 04	5821
130	42 Ophiuchi θ	+ 3 6797	+ 0 0050	- 0 003	+ 4 039	- 0 528	- 0 02	5851
131	45 Ophiuchi δ	+ 3 8221	+ 0 0091		+ 3 675	- 0 551	+ 0 18	5881
132	55 Ophiuchi α	+ 2 7774	+ 0 0030	+ 0 004	+ 2 745	- 0 402	+ 0 20	5911
133	— Scorpii κ	+ 4 1451	+ 0 0079	0 000	+ 2 362	- 0 601	+ 0 01	5970
134		+ 4 1684	+ 0 0065		+ 1 963	- 0 605		
135		+ 4 0844	+ 0 0060		+ 1 785	- 0 594		
136	86 Hercules μ	+ 2 3694	+ 0 0025	- 0 026	+ 1 656	- 0 345	+ 0 74	6021
137	8282 Taylor	+ 4 2604	+ 0 0016		+ 1 051	- 0 621		6061
138	7499 Lacaille	+ 4 1561	+ 0 0042		+ 1 040	- 0 605		
139	7504 Lacaille	+ 4 1577	+ 0 0042		+ 1 015	- 0 606		
140	33 Draconis γ	+ 1 3914	+ 0 0030	0 000	+ 0 577	- 0 203	+ 0 04	6091

119 — The Proper Motion in R. A. deduced from the *Nautical Almanac* for 1862126 — The Proper Motions deduced from the *Nautical Almanac* for 1862

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Estimations	Right Ascension			Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
141	— Sagittarii γ^1	4.3		17	56	12.29	119	34	55.1	1	0.59
142	83.5 Taylor	5.7		17	56	51.17	133	25	38.2	3	0.56
143		9.0	1	18	1	5.18	131	43	35.8	2	0.60
144	13 Sagittarii μ	4.7		18	5	30.59	111	5	27.2	1	0.67
145	7622 Lacaille	7.0		18	5	53.33	133	12	18.2	1	0.62
146	7644 Lacaille	6.5		18	8	43.12	132	20	3.0	1	0.54
147	8461 Taylor	6.0		18	14	18.56	134	9	26.8	1	0.62
148	22 Sagittarii λ	4.1		18	19	27.12	115	29	37.1	1	0.67
149		9.0		18	22	42.21	135	15	52.6	1	0.62
150	3 Lyræ α	1.0		18	32	15.74	51	20	33.6	2	0.64
151		7.5		18	35	26.69	136	44	13.5	2	0.60
152		7.5	1	18	35	39.84	137	11	6.6	1	0.64
153	R. Scuti Var 1	4.4		18	40	0.76	95	51	0.9	2	0.62
154	7872 Lacaille	6.0		18	42	11.14	136	45	9.1	1	0.64
155	7878 Lacaille	7.0		18	42	44.15	136	44	45.1	1	0.62
156	10 Lyræ β Var 1	3.9		18	44	59.09	56	47	41.3	5	0.60
157	13 Lyræ Var 2			18	51	8.15	46	14	3.2	3	0.60
158	17 Aquilæ ζ	3.5		18	59	4.00	76	20	20.6	5	0.61
159	41 Sagittarii π	4.4		19	0	33.07	111	14	22.0	1	0.67
160		9.0	1	19	8	9.62	129	49	15.9	1	0.64
161		7.5		19	9	59.73	123	31	8.8	3	0.61
162	20 Aquilæ ω	5.3		19	11	20.16	78	30	3.4	2	0.63
163	41 Sagittarii ρ^1	4.1		19	13	39.87	108	6	13.0	1	0.67
164		7.5	1	19	16	26.29	129	52	59.0	1	0.64
165	30 Aquilæ δ	3.6		19	18	32.33	87	9	26.7	3	0.61
166		8.5	1	19	24	47.69	129	56	11.3	1	0.64
167	51 Sagittarii κ^1	6.0		19	27	35.72	115	1	4.1	1	0.68
168	52 Sagittarii κ	5.3		19	28	13.28	115	11	4.6	3	0.62
169		9.0		19	34	15.31	127	17	18.3	1	0.64
170	50 Aquilæ γ	3.0		19	39	41.75	79	43	14.6	2	0.60
171		7.5		19	43	56.66	122	19	35.6	2	0.60
172	53 Aquilæ α	1.3		19	44	2.95	81	29	36.2	2	0.64
173	60 Aquilæ β	4.2		19	48	32.02	83	56	7.1	2	0.64
174	9208 Taylor	5.3		19	55	34.10	122	26	2.1	3	0.56
175	5 Capricorni α^1	4.0		20	9	59.76	102	55	54.8	1	0.68

142 145 151 152 154 155 — Comparison stars for Donati's comet of 1858

150 — Vega 153 — R. Scuti Var 1 — Period 71 days — Range—5th to 8.5 magnitude

156 — β Lyræ Var 1 — Period 129 days — Range—3.5 to 4.5 magnitude

157 — 13 Lyræ Var 2 — Period 46 days — Range—4.2 to 4.6 magnitude

161 — Comparison star for Pandora

172 — Altair

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
141	— Sagittarii γ^1	+ 3 8310	+ 0 0022		+ 0 333	- 0 559		6107
142	8555 Taylor	+ 4 3378	+ 0 0021		+ 0 276	- 0 632	+ 0 13	6112
143		+ 4 2040	+ 0 0011		- 0 095	- 0 622		
144	13 Sagittarii μ	+ 3 5875	+ 0 0009	- 0 004	- 0 452	- 0 523	+ 0 01	6168
145	7622 Lacaille	+ 4 3275	- 0 0002		- 0 516	- 0 651		
146	7614 Lacaille	+ 4 2592	- 0 0010		- 0 770	- 0 622		
147	6161 Taylor	+ 4 3678	- 0 0028	- 0 007	- 1 218	- 0 635	- 0 05	6228
148	22 Sagittarii λ	+ 3 7073	- 0 0013	- 0 005	- 1 701	- 0 537	+ 0 21	6263
149		+ 4 4148	- 0 0039		- 1 961	- 0 610		
150	3 Lyrae α	+ 2 0130	+ 0 0016	+ 0 017	- 2 611	- 0 290	- 0 08	6355
151		+ 4 1757	- 0 0100		- 3 089	- 0 611		
152		+ 4 1977	- 0 0103		- 3 108	- 0 617		
153	R. Scuti Vri 1	+ 3 2070	- 0 0011		- 3 192	- 0 458		
154	7872 Lacaille	+ 4 1695	- 0 0122		- 3 670	- 0 639		
155	7876 Lacaille	+ 4 1685	- 0 0124		- 3 719	- 0 638		
156	10 Lyrae β Vri 1	+ 2 2137	+ 0 0015	- 0 002	- 3 912	- 0 315	+ 0 03	6129
157	13 Lyrae Vri 2	+ 1 9232	+ 0 0008	- 0 001	- 1 136	- 0 257		6175
158	17 Aquilae ζ	+ 2 7575	+ 0 0003	- 0 006	- 5 112	- 0 57	+ 0 07	6528
159	41 Sagittarii π	+ 3 5731	- 0 0057	- 0 004	- 5 322	- 0 500	+ 0 03	6518
160		+ 4 1379	- 0 0146		- 5 873	- 0 574		
161		+ 3 9167	- 0 0115		- 6 0 9	- 0 512		
162	25 Aquilae ω	+ 2 8161	- 0 0003	- 0 003	- 6 143	- 0 358	- 0 02	6595
163	41 Sagittarii ρ	+ 3 4866	- 0 0061	- 0 003	- 6 336	- 0 180	- 0 03	6619
164		+ 4 1277	- 0 0161		- 6 566	- 0 515		
165	30 Aquilae δ	+ 3 0091	- 0 0016	+ 0 014	- 6 710	- 0 110	- 0 10	6646
166		+ 4 1157	- 0 0181		- 7 252	0 557		
167	51 Sagittarii h^1	+ 3 6510	- 0 0100	- 0 009	- 7 155	- 0 191	0 00	6701
168	52 Sagittarii h^2	+ 3 6516	- 0 0102	+ 0 002	- 7 538	- 0 190	- 0 02	6706
169		+ 4 0061	- 0 0179		- 9 017	- 0 533		
170	50 Aquilae γ	+ 2 8520	- 0 0011	+ 0 001	- 8 152	- 0 373	0 00	6772
171		+ 3 8325	- 0 0160		- 8 757	- 0 193		
172	3 Aquilae α	+ 2 8917	- 0 0014	+ 0 036	- 9 795	- 0 371	- 0 38	6802
173	60 Aquilae β	+ 2 9157	- 0 0033	+ 0 00	- 9 116	- 0 373	+ 0 17	6833
174	9208 Taylor	+ 3 8161	- 0 0175		- 9 690	- 0 183		6877
175	5 Cygnorum α^1	+ 3 3316	- 0 0054	- 0 009	- 10 775	- 0 106	0 00	6972

142 147 — Proper motions adopted from Mr. Stone's list in Vol. 43. *Memoirs of the Royal Astronomical Society*

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
176	6 Capricorni α	5.0		20	10	23.66	102	58	11.7	3	0.67
177	39095 Lalande	8.0	1	20	14	34.16	106	15	51.4	3	0.61
178		8.5	1	20	16	43.30	121	12	10.2	1	0.64
179	11 Capricorni ρ	5.0		20	20	59.04	108	16	2.0	4	0.64
180		8.0	1	20	26	13.37	121	13	3.2	1	0.64
181	14 Capricorni τ	5.7		20	31	33.07	105	26	10.2	1	0.58
182		8.0	1	20	35	48.56	123	58	55.6	1	0.64
183	50 Cygni α	1.7		20	36	43.61	45	12	41.5	5	0.62
184		8.0	1	20	43	29.30	124	58	32.5	1	0.64
185	32 Vulpeculae	4.7		20	48	40.75	62	27	56.8	2	0.62
186		8.0	1	20	51	28.75	126	38	27.9	1	0.64
187	23 Capricorni θ	5.3		20	53	11.12	107	46	42.1	1	0.60
188		8.5	1	20	59	31.54	129	1	55.3	1	0.64
189	13 Aquarii ν	4.8		21	2	4.41	101	55	42.3	3	0.64
190	64 Cygni 3	3.6		21	7	3.74	60	20	15.7	5	0.72
191		8.0	1	21	10	53.55	129	32	25.0	1	0.64
192	22 Aquarii β	3.2		21	24	17.53	96	10	36.2	4	0.75
193		9.0		21	29	47.18	98	25	59.4	2	0.58
194	23 Aquarii ϵ	5.3		21	30	21.08	98	28	16.2	2	0.65
195	8 Pegasi ϵ	3.3		21	37	24.43	80	45	21.5	5	0.73
196	49 Capricorni δ	3.7		21	39	25.10	106	45	5.5	1	0.63
197	16 Pegasi	5.5		21	46	47.11	61	43	22.2	6	0.76
198	31 Aquarii σ	4.7		21	56	10.36	92	49	12.8	1	0.76
199	31 Aquarii α	3.0		21	58	41.53	90	59	20.1	7	0.72
200	43 Aquarii θ	5.0		22	9	32.95	96	28	8.3	5	0.75
201	35 Aquarii 3	5.0		22	21	43.40	90	43	28.4	1	0.83
202		9.0		22	21	45.03	100	38	23.4	2	0.64
203	150 R. P. L.	5.5		22	23	45.67	4	35	19.1	8	0.77
204	62 Aquarii η	4.3		22	28	15.85	90	40	40.3	16	0.77
205	153 R. P. L.	7.6		22	29	50.56	2	37	14.5	5	0.85
206	42 Pegasi ζ	4.7		22	34	34.73	79	53	16.6	10	0.75
207	XXII 844 W. B. E.	9.0		22	40	23.04	87	40	19.8	1	0.79
208	24 Piscis Australis α	1.3		22	50	1.02	120	21	10.1	13	0.77
209		9.3		22	51	44.47	85	27	8.7	1	0.73
210	4 Piscium β	4.7		22	56	51.16	86	55	20.0	2	0.72

177 — Comparison Star for Hestia in 1861

183 — Deneb

208 — Fomalhaut

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
176	6 Capricornus α^1	+ 3 3314	- 0 0034	+ 0 001	- 10 806	- 0 403	0 00	6974
177	3909 Lalande	+ 3 3969	- 0 0100		- 11 113	- 0 408		
178		+ 3 7420	- 0 0191		- 11 267	- 0 447		
179	11 Capricornus ρ	+ 3 4324	- 0 0115	- 0 006	- 11 575	- 0 403	+ 0 01	7042
180		+ 3 7230	- 0 0200		- 11 944	- 0 431		
181	14 Capricornus τ	+ 3 3631	- 0 0105	- 0 002	- 12 317	- 0 382	+ 0 03	7127
182		+ 3 7723	- 0 0231		- 12 608	- 0 423		
183	50 Cygni α	+ 2 0432	+ 0 0021	- 0 002	- 12 671	- 0 226	0 00	7171
184		+ 3 7783	- 0 0217		- 12 125	- 0 410		
185	32 Vulpeculæ	+ 2 5054	+ 0 0026	- 0 002	- 13 164	- 0 270	0 00	7256
186		+ 3 8001	- 0 0272		- 13 644	- 0 400		
187	23 Capricornus θ	+ 3 3775	- 0 0128	+ 0 004	- 14 068	- 0 344	+ 0 05	7322
188		+ 3 6399	- 0 0306		- 14 155	- 0 390		
189	13 Aquarii ν	+ 3 2699	- 0 0098	+ 0 001	- 14 309	- 0 328	+ 0 01	7344
190	64 Cygni 3	+ 2 5004	+ 0 0036	- 0 003	- 14 612	- 0 248	+ 0 07	7368
191		+ 3 8146	- 0 0320		- 14 839	- 0 368		
192	22 Aquarii β	+ 3 1628	- 0 0071	- 0 001	- 15 002	- 0 282	0 00	7473
193		+ 3 1028	- 0 0082		- 15 900	- 0 276		
194	23 Aquarii ξ	+ 3 1929	- 0 0083	+ 0 004	- 15 933	- 0 276	+ 0 04	7514
195	8 Piscium ϵ	+ 2 9452	- 0 0005	+ 0 003	- 16 298	- 0 242	0 00	7561
196	49 Capricornus δ	+ 3 3037	- 0 0128	+ 0 014	- 16 399	- 0 270	+ 0 28	7580
197	16 Pegasi	+ 2 7253	+ 0 0050	+ 0 001	- 16 763	- 0 210	+ 0 01	7627
198	31 Aquarii σ	+ 3 10 9	- 0 0051		- 17 200	- 0 226		7672
199	34 Aquarii α	+ 3 0836	- 0 0041	- 0 003	- 17 312	- 0 219	+ 0 02	7698
200	43 Aquarii θ	+ 3 1642	- 0 0075	+ 0 006	- 17 771	- 0 205	+ 0 03	7773
201	55 Aquarii 3	+ 3 0791	- 0 0033	+ 0 009	- 18 210	- 0 179	- 0 03	7832
202		+ 3 1765	- 0 0085		- 18 210	- 0 189		
203	100 R I I	- 3 7192	- 1 1627	+ 0 018	- 18 313	+ 0 229	- 0 05	78 1
204	62 Aquarii η	+ 3 0795	- 0 0031	+ 0 003	- 18 470	- 0 166	+ 0 06	7868
205	153 R P L	- 8 1315	- 3 7919		- 18 525	+ 0 462		
206	42 Pegasi γ	+ 2 9851	+ 0 0023	+ 0 001	- 18 630	- 0 149	0 00	7908
207	XXII 844 W B E	+ 3 0547	- 0 0012		- 18 860	- 0 143		
208	24 Piscis Aust α	+ 3 3073	- 0 0210	+ 0 022	- 19 128	- 0 135	+ 0 18	7992
209		+ 3 0408	+ 0 0005		- 19 172	- 0 122		
210	4 Piscium β	+ 3 0524	+ 0 0001	+ 0 001	- 19 300	- 0 112	+ 0 02	8031

Mean Positions of Stars for 1862 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
211	33 Pegasi β Var 1	2 5		22	57	53 33	62	39	53 5	1	0 85
212	54 Pegasi α	2 0		22	57	53 25	70	32	12 5	16	0 75
213	6 Piscium γ	4 2		23	10	0 65	87	28	16 2	18	0 78
214		9 3		23	10	59 17 ⁴²	127	26	13 4	1	0 78
215		8 0	1	23	11	30 98	129	58	31 4	1	0 76
216		8 0	1	23	12	6 44	127	25	28 9	1	0 78
217	8 Piscium κ	5 7		23	19	51 44	89	29	58 5	12	0 79
218	10 Piscium θ	5 0		23	20	58 00	84	22	42 9	1	0 61
219	158 R P L	5 7		23	27	50 26	3	27	14 0	2	0 78
220	17 Piscium ι	4 5		23	32	51 16	85	7	16 6	10	0 80
221	9583 Lacaille	8 0	1	23	38	43 99	128	44	33 2	1	0 84
222		8 5	1	23	40	57 87	128	47	18 4	1	0 75
223	— Sculptoris δ	4 3		23	41	43 91	118	53	36 1	7	0 78
224		8 5		23	41	51 93	142	5	4 4	1	0 82
225	R Cassiopeæ Var 3	6 0	1	23	51	24 70	39	23	48 8	2	0 83
226		9 3		23	51	52 94	143	16	38 8	1	0 82
227	28 Piscium ω	4 3		23	52	13 54	83	54	2 2	9	0 80

211 — Scheat — Supposed to vary irregularly between 2 2 and 2 7 magnitudes

212 — Markab

225 — R Cassiopeæ Var 3 — Period 426 days — Range—5th magnitude to invisibility

59 43

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Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
211	53 Pegasi β Var 1	+ 2 8848	+ 0 0117	+ 0 016	- 19 305	- 0 106	- 0 17	8032
212	54 Pegasi α	+ 2 9797	+ 0 0056	+ 0 003	- 19 323	- 0 107	+ 0 02	8034
213	6 Piscium γ	+ 3 0092	+ 0 0005	+ 0 047	- 19 581	- 0 087	+ 0 01	8105
214		+ 3 2892	- 0 0264		- 19 598	- 0 093		
215		+ 3 3073	- 0 0980		- 19 608	- 0 098		
216		+ 3 2840	- 0 0263		- 19 618	- 0 087		
217	8 Piscium κ	+ 3 0699	0 0000	+ 0 005	- 19 748	- 0 069	+ 0 12	8169
218	10 Piscium θ	+ 3 0498	+ 0 0026	- 0 011	- 19 765	- 0 067	+ 0 06	8177
219	158 R P L	- 0 0268	- 0 4971	+ 0 084	- 19 858	+ 0 010	- 0 01	8213
220	17 Piscium ι	+ 3 0584	+ 0 0030	+ 0 025	- 19 916	- 0 012	+ 0 15	8233
221	9583 Lacaille	+ 3 1715	- 0 0248		- 19 969	- 0 034		
222		+ 3 1611	- 0 0241		- 19 987	- 0 029		
223	—Sculptoris δ	+ 3 1307	- 0 0161	+ 0 003	- 19 992	- 0 026	+ 0 07	8275
224		+ 2 078	- 0 0108		- 19 993	- 0 028		
225	R Cassiop Var 3	+ 3 0110	+ 0 0364		- 20 041	- 0 007		
226		+ 3 1356	- 0 0402		- 20 042	- 0 007		
227	28 Piscium ω	+ 3 0671	+ 0 0047	+ 0 010	- 20 044	- 0 005	+ 0 13	8331

211 — Proper Motions adopted from the *British Association Catalogue*

223 — Proper Motions deduced from ' *Nautical Almanac for 1862* '

SEPARATE RESULTS
OF
OBSERVATIONS
MADE WITH THE
MADRAS MERIDIAN CIRCLE
IN THE YEAR
1863.

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
1	21 Andromedæ α	Oct	29	R	0	1	18 56		61	39	59 3	
			30	R		1	18 68			39	59 1	
		Nov	7	M		1	18 74			39	58 9	
			13	M		1	18 61			40	0 5	
2		Oct	10	M	0	6	3 70		149	40	35 9	6 2
		Nov	11	M		6	3 57			40	37 1	6 3
3	88 Pegasi γ	Aug	29	R	0	6	10 93		75	34	43 2	
		Oct	30	R		6	11 11			34	43 4	
			31	R		6	10 95			34	42 8	
		Nov	6	M		6	10 95			34	44 0	
			9	M		6	10 94			34	43 3	
			13	M		6	10 93			34	44 0	
4		Oct	17	R	0	9	19 71	5	149	32	9 0	8 7
		Nov	4	M		9	20 07			32	13 7	9 0
5		Nov	2	M	0	12	44 45		150	26	58 0	9 4
6	41 Piscium δ	Sep	26	R	0	13	32 96		82	34	16 0	
7	R Andromedæ Var 1	Aug	29	R	0	16	48 24		52	10	54 0	9 5
			31	R		16	48 19			10	55 2	9 4
		Oct	17	R		16	48 30			10	54 9	7 8
		Nov	3	M		16	47 82			10	56 6	7 7
			6	M		16	48 26			10	56 3	7 8
8		Oct	10	M	0	17	34 80	5	149	35	28 0	10 0
			29	R		17	34 80			35	30 6	9 8
		Nov	4	M		17	34 89			35	30 4	9 7
			13	M		17	34 43			35	29 0	9 4
9	45 Piscium	Sep	26	R	0	18	38 23	6	83	4	0 1	
		Nov	20	R		18	38 19			3	59 8	
			21	R		18	38 16			3	59 5	
10	12 Ceti	Oct	31	R	0	23	2 90		94	42	54 1	
		Nov	7	M		23	2 78			42	53 8	
			9	M		23	2 81			42	54 3	

43 25

43 27

53 9

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				h	m	s					
10	12 Ceti	Nov 11	M	0	23	2 78		94	42	54 6	
		14	M		23	2 83			42	55 2	
		18	R		23	2 77			42	52 9	
11		Nov 23	R	0	25	18 92	5	76	9	33 2	10 5
12		Oct 10	M	0	28	50 71		89	7	55 6	9 2
		29	R		28	50 72	5		7	56 2	9 8
		30	R		28	50 65	5		7	55 8	
		31	R		28	50 61			7	54 5	9 7
		Nov 2	M		28	50 62			7	54 8	9 7
		4	M		28	50 81			7	55 9	9 5
		5	M		28	50 50			7	56 1	9 4
13		Aug 29	R	0	30	44 80	4	89	7	52 9	9 8
		31	R		30	41 78	5		7	56 5	9 9
		Oct 17	R		30	44 97	5		7	54 4	9 2
		29	R		30	44 87			7	54 0	9 9
		30	R		30	45 13	5		7	53 8	
		31	R		30	14 75			7	53 8	9 7
		Nov 4	M		30	44 74			7	55 6	9 6
		5	M		30	44 72			7	55 1	9 5
		6	M		30	44 60			7	53 7	9 3
		7	M		30	44 77			7	53 0	9 3
14	18 Cassiopeæ α Var 1	Dec 7	M	0	32	45 ¹⁷ 65		34	12	54 3	
		8	M		32	45 03			12	53 9	
15	1097 Lalande	Nov 3	M	0	34	32 78		89	0	17 3	8 2
		9	M		34	32 82			0	16 8	8 0
		11	M		34	32 63			0	17 1	8 0
		13	M		34	32 81			0	17 9	8 0
		14	M		34	32 71			0	17 9	8 0
		20	R		34	32 77	5		0	16 7	8 2
16	1128 Lalande	Oct 30	R	0	35	38 91		89	3	21 6	9 2
		31	R		35	38 84			3	20 8	9 1
		Nov 11	M		35	38 91	4		3	21 5	9 0
		14	M		35	39 00	5		3	23 4	8 9

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
16	1123 Lalande	Nov 20	R	0	35	38 88	5	89	3	21 4	9 0
		21	R		35	38 80	5		3	21 1	8 9
		23	R		35	38 86			3	22 5	8 7
		24	R		35	38 95	6		3	20 9	8 8
17	16 Ceti β	Nov 18	R	0	36	42 64		108	44	19 8	
		Dec 30	M		36	42 73			44	22 0	
18	1198 Lalande	Oct 28	R	0	38	3 46		88	56	36 3	8 7
		29	R		38	3 41	5		56	36 9	8 3
		Nov 4	M		38	3 46	3		56	38 1	8 9
		6	M		38	3 61			56	37 6	8 9
		Dec 8	M		38	3 45	5		56	37 6	8 9
		15	M		38	3 53			56	36 1	8 9
		18	R		38	3 58	4		56	36 2	9 2
		22	R		38	3 52	4		56	37 3	
		23	R		38	3 51	4		56	36 5	8 7
19	0 658 W B E	Oct 17	R	0	38	34 98		82	2	31 3	9 3
		30	R		38	34 99	6		2	33 8	9 5
		31	R		38	31 85			2	31 9	9 3
		Nov 5	M		38	34 89			2	31 4	10 0
		23	R		38	35 06	5		2	32 2	9 5
		24	R		38	34 92	5		2	33 3	9 5
		Dec 18	R		38	34 98	4		2	31 7	9 7
		22	R		38	34 93	4		2	32 6	
		23	R		38	34 94	4		2	33 1	9 5
20	63 Piscium δ	Aug 31	R	0	41	34 52	5	83	9	41 0	
		Nov 20	R		41	34 58			9	40 9	
21		Oct 29	R	0	41	37 12	5	89	6	55 9	9 5
		Nov 2	M		41	37 05	6		6	56 1	9 5
		Dec 7	M		41	36 97			6	54 5	9 0
		14	M		41	37 01	4		6	55 9	9 1
		16	R		41	37 00	4		6	56 2	
		17	R		41	37 04	6		6	57 1	9 5
22		Aug 29	R	0	42	6 11	5	88	49	49 7	10 0
		Oct 10	M		42	5 86			49	48 6	10 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magn. trade
				<i>h</i>	<i>m</i>	<i>s</i>					
6 10 — 22		Oct 26	R	0	42	011	5	88	49	49 1	98
		31	R		42	6 01	4		49	48 5	97
		Nov 7	M		42	5 70			49	47 8	100
		9	M		42	6 03			49	48 1	100
		23	R		42	6 04	5		49	48 5	99
		Dec 15	M		42	6 09			49	46 8	100
		18	R		42	5 96	6		49	49 2	100
		19	R		42	5 94			49	49 4	
36 91 — 23	0806 W B E	Oct 26	R	0	46	36 92		88	50	6 3	91
		Nov 3	M		46	36 76			50	5 6	100
		4	M		46	36 92			50	5 5	100
		6	M		46	36 69			50	7 7	100
		13	M		46	36 82			50	6 7	95
		14	M		46	36 78			50	6 8	95
		24	R		46	36 97	5		50	5 7	96
24		Oct 1	M	0	^s 47	52 11		133	47	34 4	
25	1638 Lalande	Oct 29	R	0	50	37 45		88	57	24 6	75
		30	R		50	37 52	5		57	24 8	78
		Nov 9	M		50	37 49			57	25 3	78
		, 11	M		50	37 42			57	25 1	78
		18	R		50	37 38	6		57	24 7	
		Dec 8	M		50	37 43			57	25 8	78
		10	M		50	37 54			57	24 7	78
26	1639 Lalande	Oct 28	R	0	50	39 25	5	88	38	55 3	92
		Nov 2	M		50	39 48			38	57 1	89
		, 20	R		50	39 27			38	54 7	87
		23	R		50	39 38			38	53 7	
		28	R		50	39 51	5		38	54 2	
		Dec 7	M		50	39 30			38	54 4	89
		, 14	M		50	39 16			38	55 1	89
39 79 — 27	271 Lacaille	Oct 9	M	0	52	39 52		151	26	17 1	78
28	1784 Lalande	Oct 29	R	0	54	55 91		88	12	48 6	81
		Nov 3	M		54	55 96			12	48 9	80
		5	M		54	55 91			12	47 4	80

39 50

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
28	1784 Lalande	Oct 6	M	0	54	55.82		88	12	49.1	8.0
		7	M		51	55.91			12	47.3	8.0
		23	R		54	55.93	5		12	48.3	8.3
		21	R		51	55.99	5		12	48.5	8.2
29	71 Piscium ϵ	Dec 16	R	0	55	50.12		82	50	53.8	
		17	R		55	50.12			50	56.1	
		18	R		55	50.10			50	51.7	
		19	R		55	50.09			50	51.3	
		21	R		55	50.11			50	51.8	
		23	R		55	50.03			50	51.3	
		24	R		55	50.07			50	51.8	
		25	R		55	50.09			50	51.3	
		26	R		55	50.06			50	51.0	
		29	M		55	50.05			50	54.6	
30	1579 Lalande	, 30	M		55	49.97			50	53.3	
		Oct 28	R	0	57	40.70		88	25	16.3	7.9
		30	R		57	40.91			25	15.1	8.0
		Nov 13	M		57	40.88			25	16.8	7.8
		, 14	M		57	40.81			25	16.1	7.8
		18	R		57	40.71	4		25	15.0	
		20	R		57	40.88			25	15.1	7.8
31	01031 W B D	25	R		7	40.82			25	14.6	7.9
		Nov 4	M	0	59	4.81		88	6	10.2	9.0
		9	M		59	4.87			6	8.1	9.0
		11	M		59	4.95			6	9.3	9.0
		21	R		59	4.82	6		()	11	9.2
		28	R		59	4.91			6	7.1	9.0
		Dec 8	M		59	4.68			6	9.9	9.0
32		9	M		59	4.91			6	5.6	9.0
		Oct 6	M	1	2	9.01		87	57	26.8	10.0
		8	M		2	8.81			57	27.9	10.0
		, 10	M		2	8.76	3		57	25.9	10.0
		28	R		2	8.98	5		57	28.1	9.8
		29	R		2	8.96			57	28.7	9.1
		31	R		2	8.91			57	27.5	9.7
		Nov 5	M		2	8.87			57	27.2	9.6

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Latitude
				<i>h</i>	<i>m</i>	<i>s</i>					
32		Nov 6	M	1	2	8 65		87	57	29 1	97
		23	R		2	8 84	5		57	27 6	100
		24	R		2	8 99	6		57	28 2	98
33	I 15 W B D	Oct 30	R	1	2	57 22	5	87	39	1 3	97
		Nov 7	M		2	56 91			39	0 2	90
		25	R		2	57 04	5		39	1 4	90
		Dec 14	M		2	57 13	4		39	2 5	90
		15	M		2	57 13			39	0 7	90
		17	R		2	57 01			39	3 3	97
		18	R		2	57 09			39	2 8	95
		19	R		2	57 08			39	1 5	99
		21	R		2	57 10			39	2 8	95
34	2089 I rinde	Nov 4	M	1	3	24 37		88	10	34 3	89
		21	R		3	24 36			10	35 1	80
		28	R		3	24 40			10	35 2	87
		Dec 9	M		3	24 51			10	35 4	89
		23	R		3	24 31	6		10	35 1	90
		24	R		3	24 30	4		10	35 1	
		26	R		3	24 42	4		10	31 1	
35	23 Ceti	Dec 26	R	1	3	30 55	4	88	17	4 6	
		29	M		3	30 85	2		17	6 0	
		30	M		3	30 60			17	6 1	
		31	M		3	30 53			17	6 1	
36	86 Piscium γ A	Aug 31	R	1	6	34 40	5	83	9	1 1	
		Scp 28	R		6	34 50			9	0 4	
		Dec 19	L		6	34 45			9	0 6	
37	1 101 W B I	Oct 28	R	1	7	42 79		87	54	19 1	92
		Nov 18	L		7	42 70			54	16 5	
		23	R		7	42 66			54	18 2	82
		24	R		7	42 87	6		54	17 5	90
		28	R		7	42 75			51	17 7	89
		Dec 10	M		7	42 70			54	17 5	90
		14	M		7	42 73			54	18 5	90

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
38	1 Ursæ Minoris α <i>s p</i>	Apl 8	M	1	8	59 31	3	1	25	15 1	
		<i>s p</i> 10	M		8	59 32	3		25	17 0	
		<i>s p</i> 13	M		8	59 53	3		25	13 1	
		<i>s p</i> 15	M		9	0 06	3		25	11 4	
		May 9	M		8	59 61	3		25	15 6	
		<i>s p</i> 19	R		8	59 69	3		25	15 3	
		<i>s p</i> 26	R		8	59 95	3		25	15 4	
		Dec 12	M		8	59 64	2		25	14 5	
		17	R		8	59 13	2		25	16 4	
39		Oct 29	R	1	9	13 09	5	67	42	21 2	97
		30	R		9	13 19			12	24 6	98
		31	R		9	12 97			42	25 0	96
		Nov 9	M		9	13 05			12	21 3	100
		11	M		9	12 95			42	21 7	100
		13	M		9	12 68			12	21 9	97
		14	M		9	12 92			12	24 6	98
		21	R		9	13 03			42	23 9	
40	45 Ceti θ	Aug 31	R	1	17	10 50	5	98	53	29 0	
		Oct 29	R		17	10 51			53	29 3	
		Nov 25	R		17	10 47			53	28 7	
		30	R		17	10 50			53	28 9	
		Dec 16	R		17	10 63			53	29 0	
		17	R		17	10 52			53	31 0	
		21	R		17	10 55			53	29 9	
		23	R		17	10 52			53	30 2	
		25	R		17	10 56			53	28 1	
		26	R		17	10 53			53	29 1	
		30	M		17	10 47			53	30 8	
		31	M		17	10 44			53	29 9	
41		Nov 28	R	1	23	24 08	5	87	44	17 1	80
		Dec 8	M		23	24 01			14	17 3	81
42	R Piscium Var 1	Dec 23	R	1	23	34 40	4	87	49	48 5	102
43	99 Piscium η	Aug 31	R	1	24	9 37	5	75	21	43 5	
		Oct 26	R		24	9 37	5		21	43 8	
		Nov 14	M		24	9 30			21	44 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
43	101 Piscium η	Nov	21	R	1	24	9 32	5	75	21	43 1	
			23	R		24	9 35			21	42 4	
		Dec	17	R		24	9 32			21	45 0	
			21	R		24	9 29			21	43 3	
			25	R		24	9 30	5		21	42 6	
			26	R		24	9 31			21	43 0	
			31	M		24	9 35			21	43 4	
44	102 Piscium π	Oct	26	R	1	20	50 23		78	33	39 1	
45	525 Tylor	Nov	4	M	1	30	7 09		148	50	23 0	5 9
			5	M		30	6 86			50	24 3	5 9
46	539 Tylor	Nov	3	M	1	31	43 84	5	148	58	15 6	5 5
			6	M		31	43 49	5		58	17 6	5 7
47	— Iridani α	Nov	18	R	1	32	36 63	5	147	56	2 4	
		Dec	22	R		32	36 78			56	2 9	
48	106 Piscium ν	Oct	20	R	1	34	18 22		80	12	25 4	
		Nov	14	M		34	18 22			12	26 7	
			21	R		34	18 24			12	24 4	
		Dec	8	M		34	18 30			12	25 7	
			11	M		34	18 19			12	24 9	
49	503 Iacullo	Nov	11	M	1	35	40 99		151	41	37 3	7 5
			25	R		35	40 93			41	36 2	8 3
50	507 Iacullo	Nov	7	M	1	37	6 61		151	28	49 2	6 0
			28	R		37	6 38			28	51 4	6 3
51	110 Piscium σ	Nov	21	R	1	38	9 67		81	31	59 8	
52		Oct	28	R	1	39	51 31	5	149	27	30 0	9 0
		Nov	2	M		39	51 70			27	41 1	9 5
53		Nov	11	M	1	46	7 59	5	148	58	15 5	9 7
		Dec	8	M		46	7 53	3		58	14 7	9 6

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wnes	Mean Polar Distance 1863			Magnitude
				h	m	s		°			
54	6 Arietis β	Oct 29	R	1	47	4 62		69	51	184	
		Nov 4	M		47	4 62			51	189	
		9	M		47	4 59			51	484	
		18	R		47	4 59			51	484	
		21	R		47	4 57			51	485	
		30	R		47	4 57			51	491	
		Dec 7	M		47	4 46			51	498	
		10	M		47	4 68			51	493	
		11	M		47	4 59			51	499	
		12	M		47	4 57			51	477	
		19	R		47	4 72			51	486	
		24	R		47	4 70			51	478	
		31	M		47	4 61			51	491	
55		Nov 7	M	1	48	31 03	5	150	5	312	93
		25	R		48	31 15	6		5	308	95
56	582 Lacaille	Nov 3	M	1	50	52 87		140	11	390	87
		6	M		50	52 65			44	401	85
57		Nov 7	M	1	59	21 53		150	2	492	96
		25	R		59	21 63			2	506	95
58	13 Auctis α	Nov 11	M	1	59	27 26		67	11	162	
		28	R		59	27 34			11	119	
		30	R		9	27 35	5		11	119	
		Dec 6	M		59	27 23			11	159	
		11	M		9	27 31			11	155	
		11	M		59	27 32			11	158	
		15	M		9	27 30			11	145	
		16	R		9	27 22			11	142	
		24	M		9	27 31			11	155	
		29	M		59	27 35			11	159	
59	630 Lacaille	Nov 5	M	1	59	46 48		145	32	175	60
		13	M		59	46 48			32	183	60
60		Oct 29	R	2	1	1 61	5	149	49	198	96
		Nov 2	M		1	1 56	6		49	239	96

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
61	697 Taylor	Nov 6	M	2	1	44.07		145	44	16.5	7.0
		Dec 17	R		1	43.78	5		44	16.2	7.8
62	17 Arcturus η	Dec 19	R	2	5	8.15		69	26	5.5	
63	677 Laculle	Nov 7	M	2	6	51.10	5	149	47	52.8	8.0
64		Nov 11	M	2	6	56.71		148	39	46.7	9.8
65	67 Ceti	Dec 7	M	2	10	9.00 ⁵		97	3	19.4	9.05
		8	M		10	9.01			3	20.0	
		10	M		10	9.01			3	19.2	
		11	M		10	9.01			3	19.2	
		14	M		10	9.05			3	21.2	
		20	M		10	9.10			3	21.0	
66	68 Ceti or Van 1	Dec 17	R	2	12	25.61		93	36	8.6	7.8
67		Oct 27	R	2	13	56.12	5	148	27	13.6	9.7
		Nov 4	M		13	56.25	4		27	14.2	9.6
68		Nov 9	M	2	15	38.11	5	152	34	27.8	7.1
		Dec 18	R		15	37.61	5		34	28.0	9.0
69	81b Taylor	Oct 26	R	2	19	6.27	5	117	26	14.8	8.5
		27	R		19	6.31	5		26	15.0	8.0
70	73 Ceti ξ	Nov 18	R	2	20	52.68		82	5	20.7	6.6
		, 23	R		20	52.59			9	21.8	
		23	R		20	52.70			9	20.8	
		Dec 7	M		20	52.66			9	20.8	
		10	M		20	52.61			9	21.1	
		, 12	M		20	52.66			9	20.6	
		14	M		20	52.64	5		9	22.8	
		15	M		20	52.60			9	21.2	
71	— Horologium λ	Nov 13	M	2	21	4.08		150	55	36.9	6.0
		Dec 19	R		21	1.21			55	31.7	7.0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863	No of Wires	Mean Polar Distance 1863	Magnitude
				<i>h m s</i>			
72	26 R P L	Nov 14	M	2 22 11 74	3	3 33 14 8	
		, 26	R	22 11 90	2	33 10 1	
73		Nov 9	M	2 24 13 73		152 35 55 2	9 3
		Dec 18	R	24 13 58	5	35 56 7	9 5
74		Oct 26	R	2 27 23 67		147 12 29 7	8 7
		27	R	27 23 69	4	12 28 1	8 8
75	31 Arietis	Nov 23	R	2 29 9 86		78 8 50 0	
76	849 Lacaille (1st)	Nov 9	M	2 35 59 20		150 9 20 0	7 8
77	849 Lacaille (2nd)	Dec 10	M	2 36 3 93		150 9 32 8	7 9
		14	M	36 3 78	2	9 31 6	8 0
78	86 Ceti γ	Oct 28	R	2 36 12 30	6	87 20 40 8	
		Nov 20	R	36 12 23		20 37 5	
		Dec 7	M	36 12 12		20 37 6	
		8	M	36 12 17		20 38 5	
		12	M	36 12 21		20 36 4	
		18	R	36 12 26	5	20 11 5	
79	38 Arietis	Nov 23	R	2 37 20 97	5	78 7 55 9	
80	868 Lacaille	Oct 26	R	2 38 31 18		117 13 27 5	8 0
		27	R	38 31 17		13 26 4	8 5
81		Dec 15	M	2 43 16 32		118 0 51 6	8 7
82		Oct 26	R	2 44 27 54	5	118 14 5 1	8 8
		27	R	44 27 45		14 5 9	8 7
83		Nov 26	R	2 45 12 36	5	76 28 9 1	9 0
84	48 Arietis ϵ	Oct 26	R	2 51 22 97		69 12 38 0	
		27	R	51 23 01		12 37 7	
85		Dec 8	M	2 52 20 72	A	150 17 22 3	8

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
86	92 Octi α	Nov 23	R	2	55	7 21		86	27	0 5	
			R		55	7 23			27	0 0	
			R		55	7 15			27	0 4	
			R		55	7 12			27	0 2	
		Dec 10	M		55	7 14			27	0 4	
			M		55	7 16			26	59 6	
			R		55	7 17			27	1 0	
			R		55	7 20			27	1 2	
87	25 Persei ρ Var 2	Dec 11	M	2	56	21 33		51	41	38 0	
88	26 Persei β Var 1	Dec 19	R	2	59	15 82		49	34	55 4	
89	1047 Taylo	Nov 7	M	2	59	50 11		151	20	1 8	6 0
90	33 R P L	Jan 9	M	3	0	29 64	5	5	35	4 3	
		10	M		0	30 02	3		35	3 3	
91	57 Arctis δ	Oct 26	R	3	3	47 94		70	47	40 7	
			R		3	47 94			47	38 6	
		Nov 23	R		3	47 96			47	39 8	
			R		3	47 99			47	39 4	
		Dec 30	M		3	48 00			47	39 9	
92		Jan 16	M	3	12	38 90	5	130	50	30 1	8 5
		Dec 14	M		12	38 92	4		50	30 7	8 5
		22	R		12	39 02			50	30 7	9 0
93	61 Arctis τ	Nov 23	R	3	13	19 29		69	20	59 3	
		21	R		13	19 37			20	59 4	
94		Oct 26	R	3	14	49 93	5	150	6	32 6	9 2
95	1 Tauri σ	Dec 12	M	3	17	26 50		81	27	20 8	
96		Oct 27	R	3	20	16 88	5	149	19	7 8	9 0
97	R Persei Var 3	Dec 22	R	3	21	20 25		54	48	15 6	9 7
		23	R		21	20 20	6		48	15 2	10 2

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wnes	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
98		Nov 18	R	3	21	56 70		88	12	37 5	7 5
99		Nov 13	M	3	25	51 94		87	53	32 0	9 0
		27	R		20	51 95			53	28 5	9 4
100	1193 Lacaille	Dec 8	M	3	35	14 00		146	35	24 7	8 3
101	1200 Lacaille	Nov 14	M	3	36	23 16		146	40	41 3	6 7
102		Nov 26	R	3	38	3 95	5	146	13	2 3	9 0
103	25 Tau ¹ η	Jan 5	M	3	39	20 69		66	19	16 4	
		6	M		39	20 75			19	17 6	
		8	M		39	20 73			19	18 1	
		10	M		39	20 72			19	18 4	
		Oct 27	R		39	20 64	5		19	19 6	
		28	R		39	20 65			19	19 4	
		Dec 9	M		39	20 59			19	19 1	
		15	M		39	20 66			19	17 6	
		22	R		39	20 60			19	18 5	
		23	R		39	20 60			19	18 6	
104		Feb 5	R	3	40	8 33	5	76	27	51 2	
		Nov 26	R		45	8 18	5		27	58 6	8 6
		Dec 22	R		45	8 35	5		27	56 0	9 0
105	34 Eridani γ ¹	Jan 5	M	3	51	38 22		103	54	1 1	
		6	M		51	38 23			54	1 9	
		8	M		51	38 23			54	2 1	
		Nov 25	R		51	38 25			54	2 0	
		27	R		51	38 25			54	3 0	
		Dec 9	M		51	38 20			54	2 7	
		14	M		51	38 29			54	4 7	
		22	R		51	38 31			54	3 0	
106		Nov 24	R	3	53	2 96		128	25	35 7	10 0
107	35 Trianguli γ ¹	Jan 9	M	3	53	5 55	5	77	53	58 3	
		10	M		53	5 63			52	58	
									53	57 3	
									54	57	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863	No of Wires	Mean Polar Distance 1863	Magnitude
				<i>h m s</i>			
108		Dec 12	M	3 53 38.68	5	143 8 33.2	8.1
109	37 Tauri A ¹	Oct 27	R	3 56 35.92	5	68 17 45.3	
		28	R	56 35.86	5	17 47.1	
		Dec 22	R	56 35.87		17 46.2	
110	7581 Lalande	Feb 5	R	3 58 10.37	6	74 52 31.5	9.0
		9	R	58 10.41	5	52 30.7	
111		Feb 2	R	4 3 20.55	4	68 30 27.2	10.0
		Nov 24	R	3 20.45	4	30 28.3	10.3
112	7764 Lalande	Feb 5	R	4 3 24.83		74 41 0.8	8.5
		, 9	R	3 24.96	5	44 2.1	8.3
113		Nov 27	R	4 3 41.01		146 56 38.5	9.2
114	38 Lalande	Jan 15	M	4 5 10.70		97 11 51.4	
		Dec 18	R	5 10.74		11 51.7	
115	1418 Lacaille	Jan 16	M	4 12 25.56	5	143 39 54.7	8.0
		Oct 28	R	12 25.52		39 54.7	8.2
116		Nov 27	R	4 13 44.17	5	70 51 40.1	8.8
		Dec 12	M	13 44.12		51 40.6	9.0
117		Feb 2	R	4 15 37.57	6	128 39 56.9	9.5
		5	R	15 37.80	4	39 59.9	9.5
118		Dec 8	M	4 16 44.91	3	149 4 34.4	8.7
119	74 Tauri ε	Jan 5	M	4 20 37.18		71 7 35.5	
		6	M	20 37.11		7 36.9	
		9	M	20 37.23		7 36.8	
		10	M	20 37.10		7 37.0	
		14	M	20 37.26		7 35.8	
		15	M	20 37.28		7 36.0	
		17	R	20 37.16		7 35.8	
		Oct 28	R	20 37.17		7 38.2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
119	74 Tauri ϵ	Nov 24	R	4	20	37 17		71	7	37 6	
		25	R		20	37 18			7	36 4	
		Dec 9	M		20	37 12			7	38 4	
120		Dec 23	R	4	21	58 85		80	28	12 0	10 2
121	1520 Lacaille	Dec 12	M	4	26	39 85	3	147	29	8 1	8 7
122	87 Tauri α	Jan 8	M	4	28	3 67		73	46	9 6	
		9	M		28	3 63			46	10 9	
		10	M		28	3 77			46	10 6	
		11	M		28	3 86			46	9 8	
		15	M		28	3 83			46	10 5	
		16	M		28	3 69			46	10 3	
		29	R		28	3 76			46	10 3	
		Oct 26	R		28	3 65			46	12 1	
		Nov 24	R		28	3 67			46	11 3	
		Dec 9	M		28	3 90			46	12 2	
		19	R		28	3 64			46	11 4	
123		Jan 20	R	4	28	26 16		140	11	24 5	9 0
		Feb 5	R		28	25 99			14	23 2	9 0
124		Jan 21	R	4	31	41 41	5	142	59	40 9	9 5
		Dec 17	R		31	41 10	6		59	44 2	9 3
125		Jan 21	R	4	32	54 89	5	130	48	20 4	9 5
		Feb 9	R		32	55 02	3		48	21 8	
126	1566 Lacaille	Dec 12	M	4	36	44 77		148	28	31 1	8 0
127		Nov 26	R	4	36	15 67	5	64	19	22 1	9 5
		27	R		36	16 01	5		19	24 0	9 5
128	1663 Taylor	Jan 19	R	4	36	48 54	3	138	48	16 4	8 0
129		Jan 24	R	4	39	28 28	4	128	57	41 1	9 0
		Feb 5	R		39	28 19	3		57	38 8	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
130	1098 Lacaille	Feb 12	R	4	41	35 31	5	128	21	43 7	7 0
		Dec 18	R		41	35 29	5		21	43 8	8 0
131		Jan 23	R	4	43	18 87	5	180	41	18 3	9 5
		Dec 17	R		43	18 57			41	21 6	9 7
132	97 Tauri	Dec 22	R	4	43	21 60		71	23	49 8	
		23	R		43	21 56			23	49 6	
133	1625 Lacaille	Jan 19	R	4	44	57 43		140	1	53 5	8 5
		21	R		44	57 40			1	51 0	8 0
134		Jan 24	R	4	45	26 85	5	109	25	9 4	9 0
		Feb 14	R		45	26 97	5		25	8 5	8 7
135	3 Aurigæ	Jan 16	M	4	48	4 44		57	3	16 8	
		17	R		48	4 45	4		3	16 8	
		Feb 9	R		48	4 46			3	17 0	
136	1761 Taylor	Jan 22	R	4	49	57 63		129	18	43 8	7 5
137	7 Aurigæ & Var 1	Jan 21	R	4	52	8 50		46	23	0 5	
		Feb 13	R		52	8 62	5		23	0 8	
138	1780 Taylor	Jan 20	R	4	52	15 45		144	38	52 0	9 0
139		Jan 24	R	4	52	17 06	5	129	39	57 2	9 0
140	R Leporis Var 1	Jan 6	M	4	53	21 99	6	105	0	54 1	6 0
		8	M		53	22 08			0	54 1	
		9	M		53	22 26			0	54 8	
		10	M		53	22 11			0	55 0	
		15	M		53	22 17			0	53 9	6 5
141	102 Tauri	Dec 22	R	4	54	⁴³ 54 06		68	36	35 9	
142		Jan 23	R	4	55	54 58		180	17	47 1	9 0
		Feb 12	R		55	54 44			17	46 0	9 2
		17	R		55	54 56	6		17	45 1	9 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
143	1811 Tylor	Jan	22	R	4	57	1 08	5	129	55	8 7	6 5
144	1705 Lacaille	Feb	14	L	4	57	23 66		129	16	37 2	8 1
		Dec	12	M		57	23 50			16	38 0	8 0
145	2 Leporis ϵ	Jan	17	R	4	59	39 78		112	33	27 8	
			19	L		59	39 64			33	26 9	
			20	R		59	39 76			33	26 7	
			21	R		59	39 69	5		33	26 0	
		Feb	9	P		59	39 82	5		33	27 3	
			16	R		59	39 69			33	27 1	
146	15 Orionis	Nov	25	P		1	51 11		71	31	2 6	
			26	R		1	51 55			31	3 1	
147		Jan	23	R		6	0 29		131	45	17 7	9 0
		Feb	12	R		6	0 25			45	16 8	9 0
148	13 Aurigæ α	Feb	14	R	5	6	31 36		11	9	28 4	
149		Jan	22	R	5	6	50 12	5	129	6	7 7	9 0
		Feb	13	R		6	19 90			6	9 0	9 5
150	19 Orionis β	Jan	15	M	5	7	57 11		95	21	15 9	
			16	M		7	57 09			21	15 9	
			29	P		7	57 33			21	16 8	
		Dec	23	R		7	57 36			21	50 3	
151		Jan	23	R	5	12	19 77	5	129	40	10 5	9 5
		Feb	12	R		12	19 58	5		40	9 5	9 3
152	1822 Lacaille	Jan	20	R	5	15	41 44		141	43	16 4	8 0
		Feb	14	R		15	41 44	3		43	17 6	7 5
153	112 Tauri β	Jan	9	M	5	17	38 04		61	30	11 9	
			16	M		17	37 95			30	43 2	
			21	R		17	37 94			30	41 1	
			29	R		17	37 91			30	44 8	
			30	P		17	37 96			30	44 4	

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
153	112 Tami β	Feb 2	R	5	17	37 98		61	30	44 2	
		5	R		17	37 89			30	43 7	
154		Jan 22	R	5	18	11 05		129	58	4 4	8 5
		Feb 13	R		18	40 94			58	4 6	8 9
		Dec 10	M		18	10 64			58	4 3	8 7
155		Jan 23	R	5	19	43 4 ^o		131	3	57 6	9 5
156	31 Orionis δ Var 1	Jan 14	M	5	25	0 39	5	90	24	13 5	
		19	R		25	0 43			24	14 3	
		20	R		25	0 58			24	14 0	
		Feb 14	R		25	0 58			24	14 5	
		16	R		25	0 49			24	13 4	
		18	R		25	0 54			24	14 2	
		Nov 27	R		25	0 48			24	14 2	
157	11 Leporis α	Jan 21	R	5	26	41 34	6	107	55	22 7	
		22	R		26	41 31			55	22 6	
		24	R		26	41 39			55	22 8	
		Feb 5	R		26	41 38			55	21 6	
		" 17	R		26	41 36			55	22 0	
158	46 Orionis ϵ	Jan 19	R	5	29	15 81	5	91	17	33 5	
		23	R		29	15 77			17	33 9	
		Feb 2	R		29	15 68			17	33 2	
159	123 Tami γ	Jan 29	R	5	20	27 16		68	56	41 2	
160		Feb 4	R	5	31	35 77	5	128	42	15 9	9 1
		Dec 10	M		31	35 73			42	17 8	
		23	R		31	35 72			42	19 0	
161		Feb 3	R	5	32	39 88	4	128	11	17 4	9 0
		Dec 23	R		32	39 82			41	18 4	9 3
162	— Columba α	Jan 20	R	5	34	41 34	5	124	8	57 2	
		" 22	R		34	41 39			8	57 5	
		23	R		31	11 42			8	56 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s		°			
162	— Columbæ α	Feb	5	R	5	34	41 30		124	8	56 0	
			18	R		34	41 40			8	57 4	
163	2113 Taylor	Jan	24	R	5	35	6 11	5	130	45	36 7	8 5
164		Feb	17	R	5	36	41 64		129	57	52 4	9 2
165		Feb	2	R	5	38	21 08	4	130	5	29 1	9 0
			4	R		38	21 73	5		5	26 1	
166	1984 Lacaille	Jan	24	R	5	40	39 94	5	130	15	21 1	7 5
		Feb	3	R		40	39 80			15	20 6	8 0
167	54 Orionis χ^1	Feb	27	R	5	46	16 06		69	45	17 5	
		Dec	23	R		46	16 27			45	12 3	
168	2036 Lacaille	Feb	12	R	5	46	18 80		129	47	14 8	8 0
		Dec	14	M		46	18 73			47	16 1	8 2
169	58 Orionis α Var 2	Jan	16	R	5	47	45 37		82	37	19 1	
			22	R		47	45 44			37	18 6	
			23	R		47	45 30			37	18 1	
			24	R		47	45 25			37	18 6	
			30	R		47	45 31			37	17 9	
		Feb	2	R		47	45 29			37	16 3	
			3	R		47	45 17			37	17 7	
			5	R		47	45 27			37	18 4	
			9	R		47	45 21			37	17 9	
			10	R		47	45 33			37	18 0	
		Nov	26	R		47	45 36			37	19 6	
			27	R		47	45 33			37	19 8	
		Feb	13	R	5	49	34 77		130	1	20 8	9 4
		Feb	12	R	5	52	39 45	4	129	32	35 1	9 0
172		Jan	24	R	5	53	14 82		131	7	15 1	8 0
		Feb	4	R		53	14 76			7	15 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
173	2101 Lacaille	Jan 22	R	5	54	20 15	3	148	26	243	7 5
		Feb 11	R		54	20 12			26	247	8 7
174	62 Orionis χ	Dec 23	R	5	55	47 02		69	51	249	
175		Jan 30	R	5	56	7 44	6	129	57	13 8	9 5
		Feb 3	R		56	7 50			57	11 7	9 0
176	2301 Taylor	Dec 14	M	5	58	28 90		148	6	20 5	6 3
177		Feb 13	R	5	59	38 82	5	129	49	48 7	8 2
		Nov 26	R		59	39 02			49	47 0	
178	67 Orionis ν	Jan 14	M	5	59	44 93	5	75	13	6 4	
		16	R		59	44 99			13	8 0	
		22	R		59	44 94			13	7 7	
		23	R		59	45 01			13	6 8	
		24	R		59	44 99			13	7 3	
		29	R		59	44 98			13	7 8	
		Feb 2	R		59	44 90			13	7 5	
		9	R		59	45 00			13	6 9	
		10	R		59	45 00			13	7 9	
		16	R		59	45 00			13	8 5	
		23	R		59	45 10			13	7 3	
		Mar 2	R		59	45 00			13	7 8	
179		Feb 17	R	6	3	37 31		129	58	10 8	8 8
		28	R		3	37 31			58	11 2	8 8
180		Feb 11	R	6	4	20 19	5	128	2	33 8	7 0
		14	R		4	20 21			2	33 4	7 8
181	7 Gemmae γ	Jan 30	R	6	6	38 46		67	27	26 4	
		Nov 26	R		6	38 39			27	26 3	
		27	R		6	38 39			27	27 0	
182		Jan 24	R	6	8	47 70	5	131	54	43 4	9 0
		Feb 4	R		8	47 74			54	42 5	
183		Feb 18	R	6	8	51 34	4	130	31	34 1	

36 41 —
 36 42 —
 36 42 —

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
184	13 Geminorum μ	Jan 16	R	6	14	40 58		67	25	11 5	
		30	R		14	40 34			25	12 0	
		Feb 10	R		14	40 34			25	11 6	
		12	R		14	40 34			25	12 1	
		18	R		14	40 36			25	11 3	
		28	R		14	40 44	5		25	11 3	
		Nov 26	R		14	40 27			25	12 1	
185		Feb 14	R	6	21	54 66		129	36	27 4	9 3
		28	R		21	54 46	6		36	27 6	9 5
186	2521 Taylor	Jan 30	R	6	23	28 01		131	3	1 3	7 5
187	24 Geminorum γ	Jan 16	R	6	29	47 90		73	29	14 3	
		Feb 10	R		29	47 77			29	14 4	
		12	R		29	47 72			29	15 3	
		, 14	R		29	47 84			29	14 6	
		18	R		29	47 87			29	14 7	
		21	R		29	47 77			29	14 8	
		28	R		29	47 85			29	14 7	
		Mar 2	R		29	47 69			29	15 3	
		3	M		29	47 81			29	15 3	
		4	M		29	47 81			29	14 5	
		, 5	M		29	47 80			29	14 6	
		6	M		29	47 84			29	13 2	
188		Jan 17	R	6	31	24 41	5	140	0	10 4	9 0
		, 21	R		31	24 37	5		0	8 2	9 0
189		Jan 30	R	6	33	51 92	6	130	51	15 0	9 0
		Feb 4	R		33	51 92			54	13 5	9 0
190		Feb 24	R	6	34	28 58	5	130	27	51 9	7 7
191	51 Cephei (Hev)	Jan 19	R	6	35	8 49	3	2	45	17 5	
		20	R		35	8 75	3		45	16 7	
		24	R		35	8 76	3		45	16 1	
		Feb 3	R		35	8 67	3		45	16 5	
		9	R		35	8 13	3		45	16 6	

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
191	J1 Caphor (Hev)	Feb 11	R	6	35	8 35	3	2	45	15 0	
		17	R		35	8 88	3		45	15 5	
		Mar 2	R		35	8 30	2		45	17 3	
192		Feb 13	R	6	36	11 01		130	20	57 8	8 8
		14	R		36	11 15	3		20	57 0	9 0
193	31 Geminorum ξ	Feb 27	R	6	37	35 84		76	57	35 9	
		28	R		37	35 94			57	36 5	
194	9 Canis Majoris α	Jan 29	M	6	39	6 56		106	34	51 7	
195		Feb 24	R	6	42	21 57		130	56	51 6	8 8
		26	R		42	21 37			56	52 4	9 0
196		Jan 21	R	6	43	38 73		128	30	20 3	9 0
		Feb 4	R		43	38 63			30	18 9	8 5
197	2721 Taylor	Jan 17	R	6	44	52 18	5	144	35	58 2	9 0
		Feb 13	R		44	52 05			35	58 9	8 8
198	2500 Lacaille	Feb 27	R	6	46	57 71	5	130	23	14 8	7 8
199	2516 Lacaille	Feb 17	R	6	48	21 45		130	31	34 7	8 2
		23	R		48	21 60	5		31	34 4	
200		Feb 25	R	6	49	40 68	5	129	8	13 8	9 3
201	21 Canis Majoris ε	Jan 7	M	A	53	14 57		118	47	15 7	
		20	R		53	14 50			47	17 0	
		Feb 3	R		53	14 46			47	15 8	
		, 5	P		53	14 52			47	15 6	
		, 13	R		53	14 61			47	18 3	
		, 21	R		53	14 54			47	16 9	
		Feb 24	R	6	53	45 82		129	47	27 6	9 0
203	2805 Taylor	Feb 14	R	6	55	58 22		62	12	25 2	7 6
204	43 Geminorum ζ	Jan 15	M	6	55	58 85		69	13	56 3	5 5

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
204	43 Geminorum 5	Feb 26	R	6	55	58.83		69	13	57.3	
		27	R		55	58.85			13	56.5	
		Nov 27	R		55	58.89			13	56.8	
205	23 Canis Majoris γ	Feb 2	P	6	57	33.59		105	26	0.9	
		11	R		57	33.63	5		25	59.8	
		13	R		57	33.65			26	0.8	
		17	R		57	33.66			25	59.7	
		21	R		57	33.70	4		26	0.5	
		Mar 2	R		57	33.53			26	2.2	
		13	M		57	33.63			26	0.0	
206	R Geminorum Var 2	Jan 17	R	6	59	6.24		66	5	20.0	8.0
		20	R		59	6.47	5		5	20.8	8.0
		Feb 25	R		59	6.28			5	20.1	7.2
207		Jan 16	R	6	59	8.11	5	66	59	50.1	9.0
208		Feb 24	R	6	59	47.20	5	129	42	59.4	7.8
209	2851 Taylor	Mar 11	M	7	0	48.71		145	44	43.8	7.8
210	R Canis Minoris Var 1	Jan 21	R	7	1	10.41		79	45	46.7	8.7
		Feb 14	R		1	10.39	4		45	46.2	7.9
		23	R		1	10.39	6		45	46.7	8.5
211		Mar 16	M	7	4	55.62	5	130	42	26.1	9.0
212	2899 Taylor	Feb 5	P	7	5	45.64		130	8	42.2	8.3
213		Feb 27	R	7	5	49.92	5	129	23	7.9	9.0
214		Feb 25	R	7	6	36.63	5	129	2	39.0	7.3
215	2696 Lacaille	Jan 21	R	7	9	20.62		140	58	44.6	8.5
		Feb 18	R		9	20.61			58	46.6	6.3
216	2940 Taylor	Jan 23	R	7	9	26.25		129	57	35.9	8.5
217	54 Geminorum	Nov 27	R	7	10	13.09		73	12	57.4	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
218		Mar 13	M	7	10	14 44		131	52	53	9 5
219	55 Geminorum δ	Feb 2	P	7	11	56 36		67	46	7 2	
		3	R		11	56 31			46	7 3	
		, 4	R		11	56 32			36	8 7	
		, 11	R		11	56 25			46	8 3	
		13	R		11	56 27			46	9 5	
		, 17	R		11	56 35			46	9 1	
		23	R		11	56 38			46	8 5	
		24	R		11	56 30			46	8 2	
		25	L		11	56 22			46	8 6	
		26	L		11	56 33			46	9 2	
		28	R		11	56 31			46	8 5	
		Mar 2	R		11	56 23			46	9 0	
		3	M		11	56 28			46	8 7	
		4	M		11	56 36			46	9 2	
		5	M		11	56 31			46	9 8	
		6	M		11	56 23			46	8 8	
		, 19	M		11	56 39			46	9 0	
220		Feb 27	R	7	12	59 12	5	129	15	51 3	9 5
221		Mar 14	M	7	14	28 97		138	49	29 4	8 0
222		Jan 23	R	7	17	22 76	6	129	13	19 6	8 5
		Feb 12	R		17	22 78			13	19 4	8 8
223		Feb 23	R	7	18	1 93	4	129	42	29 6	9 6
		, 24	R		18	1 82	5		42	26 3	9 8
224	3013 Tylor	Feb 25	R	7	19	11 32	5	129	16	19 5	6 8
		, 27	R		19	11 35			16	18 2	7 3
225	2807 Lacaille	Jan 21	R	7	19	30 96		142	15	14 1	8 0
		Feb 18	R		19	31 17			15	15 0	
226		Mar 17	M	7	19	33 48		123	7	52 1	9 0
227		Mar 16	M	7	21	32 00		131	50	19 2	7 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
228	S Canis Minoris Var 2	Feb 11	R	7	25	17 00	3	81	23	34 9	10 0
		23	R		25	16 84	4		23	33 9	9 5
		25	R		25	16 99	5		23	34 4	9 8
229	68 Geminorum	Jan 23	R	7	25	47 25		73	52	51 5	* 6 5
		Feb 28	R		25	47 21			52	54 0	
230	66 Geminorum α	Feb 2	P	7	25	51 35		57	48	53 6	
		5	P		25	51 44			48	52 6	
		13	R		25	51 20	6		48	54 6	
		17	R		25	51 23			48	53 3	
		24	R		25	51 28			48	52 9	
		26	R		25	51 15			48	53 0	
		27	R		25	51 16			48	53 1	
		Mar 2	P		25	51 37			48	53 8	
		6	M		25	51 24			48	55 0	
		9	M		25	51 23			48	53 8	
		, 18	M		25	51 19			48	55 3	
		, 19	M		25	51 15			48	54 1	
231	3126 Taylor	Jan 19	R	7	26	27 3	5	142	5	45 3	9 0
232		Mar 17	M	7	26	46 17		123	7	15 0	9 2
233	3126 Taylor	Jan 21	R	7	29	32 74		143	15	35 0	7 5
234	10 Canis Minoris α	Jan 7	M	7	32	7 64		84	25	35 9	
		Feb 4	R		32	7 80			25	38 4	
		12	R		32	7 75			25	38 0	
		24	R		32	7 73			25	37 0	
		26	R		32	7 80			25	37 1	
		27	R		32	7 73			25	36 8	
		Mar 3	M		32	7 72			25	37 3	
		4	M		32	7 65			25	36 8	
		5	M		32	7 67			25	37 7	
		6	M		32	7 68			25	36 6	
		9	M		32	7 65			25	37 0	
		11	M		32	7 71			25	37 1	
		12	M		32	7 66			25	38 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>"</i>			
231	10 Corvis Minoris α	Jan 18	M	7	32	7 72		84	25	37 4	
		19	M		32	7 85			25	37 8	
235	2893 Lalande	Jan 15	M	7	32	41 06		121	49	18 1	8 0
236	2910 Lacaille	Jan 19	R	7	33	16 04	3	143	52	47 6	8 5
237		Jan 20	R	7	35	27 60	5	144	19	34 5	8 5
238	78 Geminorum β	Feb 4	R	7	36	55 69		61	38	46 8	
		5	P		36	55 94			38	46 1	
		11	R		36	55 75			38	46 9	
		25	R		36	55 72			38	46 8	
		, 26	R		36	55 67	5		38	46 3	
		27	R		36	55 74			38	46 7	
		Mar 2	P		36	55 63			38	47 7	
		11	M		36	55 75			38	47 5	
		12	M		36	55 59			38	47 9	
		, 13	M		36	55 79			38	47 6	
239		Jan 23	R	7	37	44 52		128	52	45 1	8 0
		24	R		37	44 49	5		52	45 4	7 0
240	81 Geminorum γ	Feb 2	S	7	38	11 35		71	9	32 3	
		28	R		38	11 35			9	33 6	
241	2971 Lacaille	Jan 19	R	7	40	16 99	4	143	54	47 6	7 5
242	T Geminorum Var 4	Jan 16	R	7	41	4 50		65	55	40 1	8 7
		Feb 23	R		41	4 50			55	41 3	7 8
243		Jan 20	R	7	41	30 83	5	144	18	31 9	8 0
244	3013 Lacaille	Jan 21	R	7	43	27 42	3	142	0	32 0	7 0
245	49 R P L	Feb 4	R	7	43	39 66	3	5	33	32 7	
246		Jan 22	R	7	45	4 70	5	129	24	42 9	8 0
		Feb 10	R		45	4 43	5		24	41 9	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wues	Mean Polar Distance 1863			Magnitude
247	1791 Brisbane	Jan 20	R	<i>h</i>	<i>m</i>	<i>s</i>					
				7	46	17 14		144	21	30 2	8 0
[294] 248	3293 Taylor	Jan 19	R	7	46	29 ¹ / ₁₆	5	144	43	55 7	8 0
249		Feb 26	R	7	48	56 74		130	25	52 8	9 1
250	1 Cancri	Feb 2	S	7	49	12 66		73	50	48 4	
251		Jan 23	R	7	49	49 23	5	129	17	12 4	8 5
		24	R		49	49 14	5		17	18 4	8 5
252		Feb 18	R	7	50	2 96	3	129	38	16 1	
253	3339 Taylor	Jan 20	R	7	51	45 81		144	16	45 2	8 0
254		Jan 19	R	7	52	52 87		114	41	30 7	9 0
255	6 Cancri	Feb 5	P	7	55	6 11		61	40	25 0	6 0
		" 14	R		55	5 90	5		49	20 1	
		" 23	R		55	5 98			49	20 8	
		" 24	R		55	6 00			49	20 3	
		" 28	R		55	5 91			49	30 2	
		Mar 2	P		55	6 17			49	30 8	
		" 11	M		55	5 93			49	30 5	
		" 14	M		55	5 96			49	30 1	
		" 17	M		55	5 95	5		49	31 0	
256	3373 Taylor	Jan 21	R	7	55	12 34		144	11	41 1	8 0
257		Jan 22	R	7	55	17 99		128	30	2 8	8 0
		Feb 10	R		55	17 96	6		30	0 6	
258		Jan 23	R	7	56	29 34		129	21	9 1	9 5
259	15 Argus ρ	Feb 11	R	8	1	42 63		113	54	41 2	
		12	R		1	42 64			54	41 7	
		" 14	R		1	42 67			54	41 4	
		Mar 9	M		1	42 68			54	41 2	
		12	M		1	42 71			54	42 2	
		14	M		1	42 64			54	42 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wnes	Mean Polar Distance 1863			
				<i>h</i>	<i>m</i>	<i>s</i>					
260		Mar 13	M	8	1	59 94		113	46	37 3	97
261		Jan 30	R	8	2	9 61	6	128	39	18 0	90
		Feb 10	R		2	9 82	5		39	14 6	93
262	16 Cancri 3	Jan 6	M	8	4	20 91		71	56	29 8	
263		Feb 17	R	8	5	17 17	4	130	45	12 2	83
264	R Cancri Var 1	Jan 16	R	8	9	0 41		77	51	22 1	50
		Feb 5	P		9	0 85			51	20 1	70
		14	R		9	0 53	5		51	22 6	80
265		Mar 28	R	8	9	20 80	4	74	15	52 6	91
		30	R		9	21 00	4		15	51 0	92
266		Mar 17	M	8	9	51 95		71	16	2 7	93
267	16224 Lalande	Mar 18	M	8	10	30 18		73	51	0 8	70
268		Feb 13	R	8	12	15 14		128	43	30 2	83
269		Feb 10	R	8	12	43 23		128	40	43 7	88
270		Feb 18	R	8	12	53 61	5	181	17	47	93
271		Feb 17	R	8	12	52 26	5	130	45	19 7	94
272		Mar 16	M	8	13	10 21		133	17	7 4	95
273	20 Cancri δ^1	Jan 6	M	8	15	30 83		71	13	50 9	
274		Jan 16	R	8	17	21 94		141	15	11 3	90
275	3620 Tylor	Feb 17	R	8	23	8 67		130	47	35 5	80
276		Feb 10	R	8	23	30 10	5	198	38	23 3	85
		13	R		23	30 06			38	21 2	90
277	31 Cancri θ	Mar 2	P	8	23	47 14		71	26	44 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					h	m	s					
278	33 Cancer η	Feb	2	S	8	24	46 87		69	5	46 0	
			3	R		21	46 93			5	44 8	
			25	R		24	46 94			5	47 6	
		Mar	13	M		24	46 97			5	46 3	
			14	M		24	47 00			5	46 4	
			16	M		24	46 88			5	46 1	
			18	M		24	47 04			5	47 4	
			23	R		24	46 88			5	46 5	
279	3651 Taylor	Feb	18	R	8	25	37 17		130	3	8 0	77
280		Jan	30	R	8	26	23 33	4	130	30	18 1	90
281		Feb	10	R	8	30	11 64	3	128	46	55 0	85
			17	R		30	11 78			46	50 0	83
282	3710 Taylor	Mar	11	M	8	31	22 50		141	20	51 9	80
283		Mar	25	R	8	33	7 28		129	23	15 2	85
			26	R		33	7 25			23	14 8	88
284	S Cancer Var 2	Jan	16	R	8	36	6 46	4	70	28	32 4	100
		Feb	11	R		36	6 26	5		28	32 6	80
			18	R		36	6 45			28	32 5	79
		Mar	24	R		36	6 40			28	32 9	80
285	3767 Taylor	Mar	4	M	8	36	16 59		140	50	2 8	85
286	47 Cancer δ	Feb	3	R	8	36	53 61		71	20	42 0	
287		Mar	6	M	8	37	48 60	5	136	5	19 7	89
288	11 Hydra ϵ	Feb	5	M	8	39	31 00		83	4	52 0	
			25	R		39	31 16			4	53 0	
		Mar	11	M		39	31 14			4	52 9	
			14	M		39	31 06			4	51 6	
			16	M		39	31 17			4	53 9	
			17	M		39	31 07			4	53 8	
			18	M		39	31 03			4	54 2	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
288	11 Hydæ ϵ	Mar 19	M	9	39	31.01		83	4	51.9	
		20	R		39	31.11			4	50.7	
		23	R		39	31.03			4	52.0	
		25	R		39	31.08			4	51.6	
		27	R		39	31.08			4	50.9	
289		Mar 26	R	8	40	27.06		129	15	20.5	8.3
290	60 R P L	Feb 27	R	8	46	3.40	3	5	16	43.0	
		Mar 5	M		16	7.80	3		16	41.2	
		, 9	M		46	9.33	3		16	42.1	
		18	M		16	9.20	3		16	41.6	
		<i>s p</i> Sep 14	M		46	8.89	2		16	40.2	
		<i>s p</i> Oct 6	M		46	8.70	2		16	44.0	
291	S Hydæ Var 3	Mar 23	R	8	46	25.06	4	86	24	59.4	10.2
		24	R		46	25.27	5		24	59.7	10.2
		, 27	R		16	25.27	5		24	58.6	10.2
292		Mar 13	M	8	47	18.74		69	36	57.0	9.6
293	3886 γ Lyra	Mar 6	M	8	48	12.00		136	52	39.3	8.0
294	T Cancr Var 3	Feb 25	R	8	48	50.46	5	69	37	45.8	9.6
		Mar 11	M		48	50.44			37	44.3	9.7
		26	R		48	50.42			37	45.1	9.0
295	T Hydæ Var 4	Jan 16	R	9	48	59.93	4	98	37	15.5	9.7
296		Mar 16	M	8	49	11.22		132	54	6.3	7.5
297	66 Cancr α	Jan 7	M	8	50	59.69		77	36	51.1	
		Feb 2	S		50	59.53			36	51.7	
		Mar 30	R		50	59.60			36	52.3	
298		Mar 14	M	8	51	52.86		137	24	27.1	9.7
299		Feb 23	R	8	54	18.07	5	130	34	38.2	8.9
		Mar 20	R		54	18.22			34	38.0	8.7

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
300	3941 Taylor	Apl 9	M	8	54	55.91		142	48	42.8	9.0
301		Apl 8	M	8	54	57.63		144	6	8.7	8.8
302		Apl 10	M	8	56	35.61	5	146	45	47.0	9.3
303		Mar 23	R	8	56	40.93	5	129	17	57.6	9.6
304		Jan 16	R	8	59	4.56		145	37	55.2	9.0
305	76 Cancer κ	Jan 7	M	9	0	19.59		78	46	56.8	
		Mar 2	P		0	19.71			46	58.5	
306		Apl 11	M	9	1	2.20		150	1	16.2	8.0
307		Feb 23	R	9	1	47.87	5	128	56	54.9	7.5
		Mar 31	R		1	47.79			56	55.2	7.9
308	3713 Lacaille	Mar 24	R	9	2	12.49	3	71	26	18.8	10.5
309		Feb 24	R	9	4	21.33	5	130	29	24.9	
		28	R		4	21.60			29	21.8	9.3
310		Apl 13	M	9	1	32.87		143	48	57.5	7.8
311		Jan 16	R	9	6	25.31	3	142	29	13.3	8.3
	83 Cancer	Feb 11	R		6	25.01			29	12.9	8.4
312		Mar 4	M	9	6	28.79		138	41	16.6	8.9
313		Mar 3	M	9	8	12.53	5	148	14	1.3	9.0
314		Feb 25	R	9	9	21.59	2	73	52	23.0	10.2
		Mar 24	R		9	21.55	3		52	26.3	10.3
315	83 Cancer	Feb 2	S	9	11	19.96	6	71	42	58.5	
		3	R		11	19.94			42	57.2	
		5	M		11	19.76			42	56.6	
		Mar 2	P		11	20.08			42	59.4	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
315	83 Cancri	Mar 9	M	9	11	10 72	5	70	42	57 9	
		16	M		11	19 83			42	59 4	
		17	M		11	19 76			42	58 3	
		20	R		11	19 81			42	58 2	
		23	R		11	19 80			42	57 7	
		25	R		11	19 86			42	57 7	
		28	R		11	19 85			42	58 3	
		31	R		11	19 83	5		42	58 5	
		Apl 1	R		11	19 96			42	58 0	
316		Feb 23	R	9	11	16 21	5	130	41	53 2	
317		Jan 16	R	9	14	32 58	5	24	50	15 3	9 0
		Feb 27	R		14	32 64			50	14 1	8 7
		28	R		14	32 63			50	13 0	9 9
318		Apl 13	M	9	15	13 69		118	113	26 1	9 2
319		Feb 11	R	9	15	49 83	5	25	4	10 3	9 0
		26	R		15	50 04			4	11 8	9 3
320		Mar 5	M	9	16	3 99		110	7	19 9	9 0
321		Mar 4	M	9	16	15 59		139	0	47 1	9 5
322	9881 O A N	Mar 13	M	9	17	32 56		25	3	29 3	9 3
323	30 Hydrae α	Feb 6	M	9	20	51 16		98	3	59 0	
		Mar 16	M		20	51 13			4	1 0	
		17	M		20	51 39			4	0 3	
		20	R		20	51 26			4	0 8	
		24	R		20	51 21			3	59 9	
		25	R		20	51 24			4	0 2	
		26	R		20	51 24			4	0 8	
		28	R		20	51 20			4	0 5	
		30	R		20	51 29			4	0 2	
		Apl 1	R		20	51 31			3	59 8	
		14	M		20	51 29			4	0 7	
		15	M		20	51 38			4	59 8	
		28	M		20	51 17			3	58 8	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observed	Mean Right Ascension 1863		No of Wires	Mean Polar Distance 1863		Magnitude
				<i>h</i>	<i>m</i>				
324	2 Leonis ω	Mar 2	P	9	21 7 29		80	10 56 3	
325	3653 Lacaille	Mar 18	M	9	22 29 81		131	59 20	80
326		Feb 26	R	9	24 30 40	6	130	25 51 2	90
		28	R		21 30 50			25 51 6	93
		Mar 27	R		24 30 35			25 53 3	90
327	6 Leonis <i>h</i>	Apr 7	M	9	24 36 90		79	40 51 5	60
328	3886 Lacaille	Mar 5	M	9	24 41 23	5	111	49 33 3	80
329	3897 Lacaille	Mar 4	M	9	24 53 13	3	110	0 16 9	80
330		Mar 6	M	9	26 53 60		144	57 51 3	90
331		Mar 23	R	9	28 52 41		128	46 39 2	88
332		Mar 24	R	9	28 58 85		128	49 16 2	80
333	10 Leonis	Feb 3	R	9	29 58 38		82	33 60	
		4	R		29 58 60			33 73	
334	4259 Faylor	Mar 7	M	9	31 55 33		138	41 31 9	50
335		Mar 25	R	9	32 25 09		129	53 36 6	87
336	69 R P L 62	Oct 23	R	9	32 32 46	3	2	46 30 6	
337		Feb 26	R	9	33 51 36	3	129	47 11 2	62
338	14 Leonis σ	Jan 7	M	9	33 50 38	5	79	29 97	
		Feb 3	R		33 50 19			29 107	
		Mar 30	R		33 50 34			29 105	
		31	R		33 50 09			29 104	
339		Feb 24	R	9	34 41 56		130	34 22 9	
340	4280 Faylor	Mar 5	M	9	34 42 40		142	19 28 7	80

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
311	17 Leonis ϵ	Feb 5	M	9	35	410		65	35	49 1	
		6	M		38	431			35	19 0	
		Mar 20	R		38	108			35	49 5	
		23	R		38	410	5		35	49 9	
		24	R		38	410			35	49 0	
		26	R		35	113			35	49 4	
		27	R		38	116			35	18 0	
		28	L		38	408			35	49 6	
		Apr 1	L		35	116			35	49 0	
		9	M		38	121			35	49 4	
		10	M		38	122			35	47 9	
		11	M		38	123			35	48 7	
312	R Leonis γ al 1	Feb 26	R	9	40	11 25	5	77	56	16 5	90
		Mar 11	M		40	11 14	6		56	15 8	92
		17	M		40	10 85			56	16 5	89
		25	L		40	11 20			56	16 2	79
		30	R		40	11 25			56	16 3	82
313		Feb 21	R	9	12	39 64	5	130	17	31 0	80
314		Mar 2	M	9	13	32 16		113	45	37 4	89
315		Mar 12	M	9	14	3 77		117	1	19 8	80
316		Mar 27	R	9	15	53 11		129	2	34 2	93
317	70 L P I	Feb 2	S	9	16	6 51	3	5	25	33 2	
		Mar 3	M		16	6 85	3		25	33 2	
		Apr 8	M		16	7 23	5		25	31 1	
		10	M		16	7 71	3		25	30 8	
		13	M		16	7 56	3		25	30 6	
		, 15	M		16	5 14	3		25	32 9	
318	4402 Tylor	Feb 26	L	9	19	50 91	5	120	17	12 3	70
		Mar 23	R		19	50 87			17	12 6	77
319	29 Leonis π	Jun 7	M	9	52	58 26		81	18	1 0	
		Mar 3	M		52	58 33	4		18	0 8	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
349	29 Leonis π	Mar 4	M	9	52	58 33	6	81	18	03	
		24	R		52	58 33			18	00	
		27	R		52	58 29			17	59 9	
		30	R		52	58 34			18	01	
		Apl 1	L		52	58 35			18	05	
		9	M		52	58 23			17	59 8	
		11	M		52	58 23			18	01	
		13	M		52	58 27			18	05	
		14	M		52	58 30			18	11	
		27	M		52	58 31			17	59 4	
		28	M		52	58 20			17	59 7	
350		Mar 12	M	9	55	49 87		147	23	57 7	80
351		Mar 14	M	9	56	24 14		111	3	33 7	80
49 24 — 352	4476 Taylor	Mar 5	M	9	57	48 75		145	35	45 6	69
353	31 Leonis A	Mar 3	M	10	0	37 80		79	19	58 3	
		4	M		0	37 84			19	57 9	
354	32 Leonis α	Feb 2	S	10	1	43 8	5	77	21	51 1	
		6	M		1	42 4			21	52 4	
		Mar 7	M		1	43 0			21	52 0	
		13	M		1	42 0			21	53 5	
		24	R		1	43 9			21	53 0	
		25	R		1	43 0			21	53	
		26	R		1	43 8			21	54 2	
		27	R		1	43 0			21	55 2	
		28	R		1	43 8			21	51 0	
		31	R		1	43 6			21	54 8	
		Apl 8	M		1	43 5			21	51 7	
		9	M		1	43 2			21	53 1	
		10	M		1	44 1			21	51 5	
		11	M		1	43 2			21	52 7	
		13	M		1	44 4			21	53 2	
		14	M		1	43 8			21	53 6	
		15	M		1	43 4			21	51 1	
		27	M		1	42 2			21	51 7	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
354	32 Leonis α	Apr 28	M	10	1	4 24		77	21	54 1	
		29	M		1	4 36			21	51 3	
355	4536 Laylor	May 26	R	10	6	1 78		129	19	7 2	
356		May 17	M	11	8	59 19		139	51	23 4	10
357	72 R P L	May 12	M	10	9	10 65	3		3	21 8	
		Apr 30	M		9	10 87	3		3	19 8	
		Aug 18	R		9	10 97	3		3	19 5	
		Nov 2	M		9	10 67	3		3	19 6	
358	4577 Laylor	May 27	R	10	9	10 10		128	36	35 7	9 0
		31	R		9	15 05			36	39 3	
359	11 Leonis γ^1	Feb 2	S	10	12	21 91		10	25	3 1	
		May 2	M		12	21 71			25	3 7	
		7	M		12	21 80			25	0	
		26	R		12	21 72			28	1 6	
		30	R		12	21 81			28	1 3	
		Apr 1	R		12	21 86			28	2 2	
		5	M		12	21 85			28	0 2	
		9	M		12	21 93			28	1 1	
		10	M		12	21 82			28	1 1	
		11	M		12	21 91			28	1 1	
		13	M		12	21 79			28	1 5	
		14	M		12	21 81			25	2	
		15	M		12	21 87			28	0 3	
		29	M		12	21 87			27	59 7	
360		May 5	M	10	14	36 11		150	25	19 3	10
361	13 Leonis	Feb 1	R	10	15	50 11		52	15	16 1	
		5	M		15	49 31			15	17 0	
362		May 27	R	10	16	9 10	6	129	15	55 9	9 0
363	44 Leonis	Apr 1	R	10	18	1 87	6	80	51	13 6	
364		May 12	M	10	18	13 26		116	8	10 2	17

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
365	47 Leonis ρ	Mar	3	M	10	21	50.24		146	31	31.6	8.9
366		Feb	4	R	10	25	35.64		79	33	22.7	
			5	M		25	35.49		59	30		
		Mar	2	M		25	35.77		39	23		
			30	R		25	35.71		53	23.3		
			31	R		25	35.60		59	22.7		
		Apl	1	M		25	35.81		59	24		
			8	M		25	35.68		39	23.1		
			10	M		25	35.67		39	0.5		
			13	M		25	35.75		59	23.1		
			15	M		25	35.67		39	22.5		
			16	R		25	35.60		9	22.3		
		May	1	M		25	35.61		59	0.7		
367	4769 Taylor	Mar	12	M	10	29	10.39		117	53 17.6		9.5
368		Mar	3	M	10	30	20.20	3	146	50	56.0	6.0
369		Mar	13	M	10	34	53.94		20	30	25.3	6.7
			17	M		34	54.27	5		30	27.0	6.7
			18	M		34	53.71	3		30	26.9	6.9
	R Ursa Majoris Var 1		19	M		34	54.32			30	26.4	6.6
		Apl	17	R		34	53.83	3		30	27.0	8.0
370		Feb	2	S	10	35	19.32	5	137	19	15.0	9.5
371		Mar	9	M	10	38	44.67		144	50	1.4	8.0
372		Mar	12	M	10	41	22.73		146	22	32.6	9.0
373		Mar	2	M	10	42	3.14		78	13	32.2	
			31	R		42	3.24			13	51.0	
	53 Leonis ι	Apl	8	M		42	3.29			43	51.3	
			16	R		42	3.23			43	50.8	
			17	R		42	3.22	5		43	51.4	
			18	R		42	3.17			43	50.1	
			28	M		42	3.17			43	53.0	
			29	M		42	3.27	3		43	50.7	

— 54 18.1

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				h	m	s		°			
373	53 Leonis γ	May 1	M	10	42	30.9		76	43	40.4	
		6	M		42	32.4			13	50.7	
		7	M		42	32.0			43	51.2	
374		May 6	M	10	42	34.28		141	4	7.1	9.0
375		May 11	M	10	43	50.46		137	2	29.7	8.9
376		Apr 15	M	10	46	0.31		111	39	32.0	7.6
377		May 5	M	10	47	50.58		150	5	1.9	10.0
378		May 18	M	10	47	56.36		129	23	53.1	10.0
379	1915 Taylor	May 9	M	10	48	3.30		114	53	27.0	7.0
380		May 11	M	10	50	13.69		141	30	10.9	8.0
381	1955 Taylor	May 12	M	10	50	38.19	5	117	19	17.2	7.0
382	4069 Taylor	Feb 6	M	10	52	16.75	5	113	35	55.0	9.0
383		May 11	M	10	52	50.29		139	32	28.7	8.9
384	59 Leonis ϵ	May 4	M	10	53	38.48		83		47.6	
		5	M		53	38.61			9	49.3	
385	61 Leonis ρ^1	Apr 28	M	10	54	50.66		91	11	52.7	
		29	M		54	50.38			41	51.7	5.5
386		May 9	M	10	56	59.40		145	35	22.1	9.0
387	4576 Lucille	May 23	R	10	57	46.14	5	129	34	13.0	8.2
388	63 Leonis χ	May 7	M	10	57	56.96		91	55	26.6	
		Apr 1	P		57	57.06	6		55	26.2	
		17	R		57	56.84			55	26.8	
		18	R		57	56.94	4		55	26.8	
		23	R		57	56.86			55	27.0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				h	m	s					
388	63 Leonis χ	May 2	M	10	57	56.85	4	81	55	26.7	
		9	M		57	56.84			55	24.6	
		12	M		57	56.88			55	27.1	
389		Mar 6	M	10	58	9.40	5	140	58	54.6	9.5
390	65 Leonis ρ^3	Mar 4	M	10	59	55.01		87	18	6.0	
391		Mar 12	M	11	0	34.00		147	13	24.8	
392	5092 Taylor	Apl 11	M	11	5	16.22		143	48	46.3	8.7
393	68 Leonis δ	Mar 2	M	11	6	49.06		68	13	39.5	
		Apl 16	R		6	49.02			43	3.5	
		23	R		6	48.99			13	35.6	
		27	M		6	49.12			13	35.2	
		30	M		6	49.11			43	34.7	
		May 1	M		6	48.96			13	33.9	
		2	M		6	48.98			43	34.4	
		6	M		6	49.02			43	33.8	
		7	M		6	49.07			13	33.0	
		12	M		6	49.05			13	34.3	
		15	M		6	49.07			43	31.9	
394		Apl 9	M	11	7	4.51	3	145	39	5.0	6.8
395		Mar 11	M	11	8	31.38		150	50	30.5	
		23	R		8	31.28			50	32.6	
396		Mar 9	M	11	9	26.23		145	54	54.6	10.0
397		Mar 12	M	11	9	36.60		147	10	54.2	
398	74 Leonis ϕ	Feb 5	M	11	9	41.54		92	54	13.0	
		6	M		9	41.89			54	11.6	
		Apl 1	P			41.93			54	13.1	
		28	M			41.66			54	11.6	
399		Mar 6	M	11	10	29.26		141	8	15.3	10.0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863	No of Wires	Mean Polar Distance 1863	Latitude
				<i>h m s</i>			
400	12 Crateris δ	Mar 20	R	11 11 5 12	5	127 38 22	
401		Apr 17	R	11 12 29 61	5	104 2 15 7	
		19	P	12 29 66		2 11 8	
		23	R	12 29 59		2 15 3	
		27	M	12 29 61		2 15 1	
		30	M	12 29 52		2 11 9	
		May 1	M	12 29 59		2 11 3	
		2	M	12 29 11		2 11 8	
		1	M	12 29 55		2 11 5	
		6	M	12 29 63		2 11 3	
		7	M	12 29 71		2 15 0	
		5	M	12 29 57		2 16 0	
		9	M	12 29 63		2 14 9	
		15	M	12 29 50		2 11 5	
402	87 Leonis ε	Mar 26	R	11 12 40 72	5	125 31 18 6	7 6
403		Mar 23	R	11 19 22 05		129 30 37 6	6 1
		26	L	19 22 17		30 37 3	9 2
404		Apr 16	R	11 21 39 16		128 22 27 3	9 5
405		Mar 9	M	11 22 15 50		115 53 23 6	9 0
406		Apr 13	M	11 23 8 90		112 52 15 5	9 2
407		Feb 5	M	11 2 18 73	5	92 11 53 9	
		Mar 5	M	23 15 57		11 51 2	
		6	M	22 14 51		14 53 7	
408		Mar 13	M	11 23 18 89		23 20 16	10 0
		16	M	23 18 86		20 53 0	10 0
		Apr 17	R	23 18 79		20 51 5	9 4
409		Mar 23	R	11 26 36 12	5	23 17 15 0	9 9
		25	R	26 36 13		17 15 0	10 0
410		Mar 2	M	11 29 18 26		119 15 22 2	8 9

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
411	91 Leonis ν	Mar 5	M	11	29	56 07		90	4	49	
		6	M		29	56 22			4	46	
		Apl 1	P		29	56 23			4	45	
		16	R		29	56 05			4	45	
		29	M		29	56 04			4	29	
		30	M		29	56 01			4	39	
		May 4	M		29	56 01			4	27	
		6	M		29	56 03			4	33	
		7	M		29	55 94			4	16	
		8	M		29	56 03			4	55	
		9	M		29	56 11			4	23	
		11	M		29	56 07			1	10	
		12	M		29	56 06			4	51	
412		Mar 14	M	11	3'	6 37	5	144	11	11 0	9 0
413		Mar 30	R	11	33	51 38	5	127	48	55 5	8 1
414		Apl 11	M	11	34	17 41		144	20	21 7	7 9
415		Mar 13	M	11	36	0 31		139	39	56 1	7 9
416	5384 Taylor	Feb 5	M	11	36	59 90	5	151	43	17 3	6 0
417		Apl 9	M	11	36	6 44	5	149	38	28 8	9 3
418		Mar 26	I	11	38	39 13	5	129	33	11 2	9 2
		Apl 17	R		38	39 00			33	12 9	9 1
419		Mar 28	R	11	41	5 95	5	126	30	4 9	9 2
420		Mar 24	R	11	41	9 27		129	31	45 2	5 3
		25	R		41	9 29			31	44 1	8 3
421	91 Leonis β	Apl 23	R	11	42	4 21	5	71	30	45 1	
		May 4	M		42	4 12			9	46 6	
		8	M		42	4 19	5		39	4 5	
		11	M		42	4 09			39	45 1	
		12	M		42	4 21			39	45 0	
		15	M		42	4 19			39	43 6	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Latitude
				<i>h</i>	<i>m</i>	<i>s</i>					
422		Apl 10	M	11	43	52.22		143	44	54.7	93
123	5127 Tylor	Feb 6	M	11	41	21.10		94	34	18.4	60
		Apl 29	M		44	20.07			54	17.5	60
		30	M		41	19.1			31	18.5	60
121		Mar 30	R	11	44	41.15		129	2	19.6	82
125	5133 Tylor	Mar 23	R	11	44	48.42		129	32	11.1	77
		27	R		41	48.39			32	40.5	78
126		Apl 13	M	11	45	45.58		112	30	41.1	94
427		Mar 28	R	11	49	53.93	5	128	5	5.2	
125		Mar 30	R	11	51	20.73	5	128	52	13.9	87
129		Apl 11	M	11	51	33.61		141	12	35.1	90
430		Mar 23	R	11	53	17.10	5	121	35	29.0	97
		27	R		53	17.13	5		35	29.0	97
131		May 16	R	11	56	20.43	5	128	29	37.2	90
432	5531 Tylor	Apl 10	M	11	56	46.47		143	56	59.0	80
133	4951 Lucille	Apl 15	M	11	56	51.02		112	44	6.0	73
144	89 R I I	Mar 20	R	11	57	48.27	2		39	15.0	
		21	R		57	48.23	3		39	13.3	
		24	R		57	48.05			9	11.7	
		25	R		57	48.16	3		39	15.0	
		31	R		57	47.95	3		39	15.0	
		Apl 23	R		57	48.30	3		39	15.0	
		May 2	M		57	48.21	3		39	15.0	
		Oct 1	I		57	48.36	3		39	11.3	
		Nov 1	M		57	48.16	5		39	12.0	
		11	M		7	47.56	3		39	10.0	
435		Mar 30	R	11	58	58.32		128	27	25.6	80

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Height Ascension 1863	No of Wires	Mean Polar Distance 1863	Magnitude
				<i>h m</i>			
436		Apl 14	M	11 59 11 35		111 10 51 2	8 0
437		Mar 27	R	12 1 33 96	5	130 1 11 1	9 0
438	5041 Lacaille	Apl 9	M	12 2 20 66		141 22 52 4	8 2
439		Feb 6	M	12 2 34 21	3	141 5 17 7	9 0
440	2 Corvi ϵ	Apl 16	R	12 3 5 01		111 51 26 7	
		May 8	M	3 4 05		51 25 5	
		9	M	3 4 95		51 28 1	
		11	M	3 4 92		51 29 1	
		16	R	3 4 96	5	51 27 6	
441		Apl 11	M	12 3 35 27		145 56 41 2	9 0
442		Apl 28	M	12 5 14 87	5	134 7 45 7	8 0
443		Mar 20	R	12 5 59 80	5	130 10 45 5	9 5
444		Apl 13	M	12 6 9 37		138 27 11 7	8 0
445		Apl 15	M	12 6 26 01	5	142 50 19 1	9 1
446	5613 Taylor	Mar 31	R	12 7 52 61		130 22 26 7	7 2
447	69 Ursæ Majoris δ	Mar 27	R	12 8 37 87		32 12 23 3	
		30	R	8 37 84		12 21 5	
		Apl 10	M	8 38 04		12 21 6	
448		Apl 14	M	12 9 46 95		144 19 53 0	8 0
449	15 Virginis η	Apl 30	M	12 12 53 87		89 54 19 1	
		May 15	M	12 53 78		54 19 3	
		16	R	12 53 85		54 19 0	
		18	R	12 53 79		54 19 6	
450		Apl 9	M	12 11 0 35		143 14 28 3	9 6
451	5119 Lacaille	Mar 6	M	12 15 18 51	5	138 33 54 9	9 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean P ^h Alt Ascension 1863	No of Wires	Mean Polar Distance 1863	Latitude
				<i>h m s</i>			
12		Apr 9	M	12 15 15.71		141 39 31.5	5
13		Apr 11	M	12 16 42.61		117 9 26.1	89
14		Apr 15	M	12 15 55.17		113 20 47.8	100
455		May 27	R	12 18 57.33	5	129 43 26.9	93
156		May 17	M	12 18 59.97	5	117 20 59.3	78
157		Apr 13	M	12 19 18.86		111 3 50.2	79
158		Apr 28	M	12 19 49.79		121 12 47.8	85
159		Apr 14	M	12 20 42.62		111 18 58.0	78
160	57° J. Taylor	Mar 7	M	12 21 6.95		145 35 21.1	70
461	21 Venus η	Apr 10	M	12 26 12.17		18 41 45.0	55
		11	M	26 42.19		41 45.4	55
162	9 Corvi β	Apr 1	M	12 27 11.59		112 38 20.3	
		May 11	M	27 11.73		38 20.1	
		15	I	27 11.65		38 19.6	
		June 1	M	27 11.68		38 18.7	
		9	M	27 11.79		38 20.0	
163		Apr 11	M	12 27 16.22		140 55 11.2	90
164		Apr 13	M	12 0 17.53		112 19 22.1	90
465	R Venus V ₂	Apr 23	I	12 31 32.89		82 15 27.7	88
		May 1	M	31 32.81		15 27.2	92
		7	M	31 32.79		15 27.2	92
466		May 21	R	12 31 48.89	5	81 30 11.7	93
467	26 Venus χ	Mar 6	M	12 32 10.66		97 14 28.5	
		7	M	32 10.63		14 27.3	

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Separate Results of Machas Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
467	26 Virginis χ	Apl 30	M	12	32	10 73	5	97	14	27 7	5 0
		May 1	M		32	10 2			14	26 2	5 0
		, 28	P		32	10 65			14	28 3	
468		Apl 15	M	12	32	46 05		143	7	21	9 0
469		Apl 9	M	12	33	43 61		145	33	10 0	6 9
470	5850 Taylor	Apl 8	M	12	34	23 55		114	0	34 8	7 8
471	29 Virginis γ^1	May 26	R	12	34	43 09		90	41	49 0	
472	S Ursa Majoris Val 2	May 20	R	12	37	54 71	3	28	9	19 6	6 5
473	5863 Taylor	Apl 11	M	12	38	18 48		143	51	43 8	7 5
474		Apl 13	M	12	41	36 48		141	49	14 8	8 8
475		Apl 9	M	12	42	20 72		147	18	24 6	9 0
476		Apl 15	M	12	42	44 02		142	51	35 8	8 9
477		Apl 14	M	12	42	47 52		139	24	55 7	9 0
478		Apl 16	R	12	43	13 93	5	129	7	30 6	8 9
479	40 Virginis ψ	Mar 6	M	12	47	14 00		98	47	39 0	
		Apl 30	M		47	13 84			47	38 5	5 0
480	99 R P L	May 26	R	12	48	10 25	2	5	50	34 5	
	<i>sp</i>	Oct 17	R		48	9 91	2		50	38 6	
481		Apl 8	M	12	49	20 13		145	33	53 6	8 9
482	12 Can Ven α	May 16	R	12	49	36 74		50	56	29 0	
		19	R		49	36 77			56	28 9	
		20	R		49	36 77			56	28 2	
		21	R		49	36 75	5		56	29 8	
		27	R		49	36 79			56	28 8	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
453	5974 Taylor	Apl 9	M	12	51	50.95		113	38	16.2	8.9
484		Apl 10	M	12	55	41.14	5	140	23	43.8	8.9
		13	M		53	44.10			23	44.1	7.9
155		Apl 27	M	12	53	22.37		135	41	7.9	8.0
456		Apl 14	M	12	54	31.52		130	18	3.3	9.2
487		Apl 29	M	12	56	50.17		123	24	51.4	8.3
488	5381 Lacaille	Apl 23	R	12	57	44.2		129	56	47.9	7.8
489	51 Virginis θ	Apl 1	M	13	2	51.29		94	48	26.1	
		May 20	R		2	51.60			18	21.3	
		26	R		2	51.56			18	21.4	
		27	R		2	51.19			48	25.2	
		30	R		2	51.15			15	24.8	
4592	490 6057 Taylor	Mar 7	M	13	3	43.62		149	11	25.0	6.0
101		Apl 15	M	13	4	25.48	5	138	10	13.4	9.2
102		Apl 11	M	13	4	32.00		143	12	0.9	9.5
103		Apl 29	M	13	5	33.90		124	16	11.8	8.9
191	W Virginis Var 1	May 21	R	13	6	51.06		105	49	35.5	8.8
		22	R		6	51.03			49	31.7	
495		Apl 14	M	13	7	35.75		139	45	53.0	9.0
496		Apl 23	R	13	9	42.08	6	129	55	57.0	8.7
497	58 Virginis	May 28	R	13	10	16.63		99	49	23.5	
		29	R		10	16.62			49	23.6	
498	6129 Taylor	May 16	R	13	12	9.65		130	28	12.3	7.4
199		May 1	M	13	12	40.63		122	56	14.5	7.9

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863	No of Wires	Mean Polar Distance 1863	Longitude
				h m s			
500	5503 Lacaille	May 20	R	13 14 55.0	5	125 23 32.1	80
501		Apl 11	M	13 1 43.91		115 12 31.9	90
502	67 Virginis a	Mar 7	M	13 17 50.68		100 26 12.9	
		May 1	M	17 58.61		26 11.2	
		2	M	17 58.56		26 42.1	
		5	M	17 58.62		26 13.2	
		16	R	17 58.70		26 43.2	
		20	L	17 58.76		26 17.5	
		June 1	M	17 58.69		26 17.5	
		3	M	17 58.80		26 12.2	
		5	M	17 58.64		26 47.6	
503	12572 O A S	May 6	M	13 19 17.43		116 56 50	102
504	5516 Lacaille	Apl 11	M	13 19 37.16		143 27 90	90
1735 505	103 R P L sp	Dec 7	M	13 20 18.58 ^{17.35}	5	4 31 41.6	
506	P Hydræ Var 1	Apl 15	M	13 22 10.96		112 4 20.1	67
		16	R	22 13.87		1 11.5	
		29	M	22 1 99		31 15.4	65
		May 7	M	22 13.82		31 19.5	70
507	76 Virginis h	Mar 7	M	13 25 45.32		100 27 30.8	
		May 1	M	25 52		27 27	0
		2	M	25 19		27 29.6	
508	S Virginis Var 6	Apl 13	M	13 25 50.09		9 27 25	75
		14	M	25 03		27 21	76
		23	L	25 09.90		27 25	71
		May 5	M	25 50.81		27 21.7	72
509	79 Virginis 3	Apl 1	M	13 27 42.1		69 50 10.1	
		May 15	L	27 12.81		50 40.7	
		19	L	27 42.10		3 40.1	
		20	R	27 12.55		50 30.2	
		21	L	27 12.85		53 39.5	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
509	71 Virginis δ	May 22	R	13	27	42.92		89	53	39.5	
		26	R		27	42.89			53	40.7	
		27	R		27	42.90			53	39.6	
		June 1	M		27	12.76			53	38.7	
		2	M		27	42.77			53	38.9	
			M		27	42.99			53	10.0	
		10	M		27	12.76			3	10.7	
510		Apr 17	R	13	32	51.55	5	129	1	18.1	7.6
511	63 (3) T. ylor	Apr 15	M	13	31	31.05	5	117	33	9.7	5.0
512		May 28	R	13	37	27.78		125	39	58.8	1.0
513		May 7	M	13	38	10.89	5	122	16	11.1	8.6
514		May 21	R	13	40	26.82	5	129	23	13.2	9.3
515	51 (3) Lalande	Apr 23	R	13	12	15.15		61	57	27.1	1.5
		29	M		12	15.27			7	25.8	9.0
		May 1	M		12	15.06			57	25.7	1.3
516	59 Virginis	May 21	R	13	12	25.63	5	107	27	1.1	
		30	R		12	25.81			27	0.2	
517		May 5	M	13	13	10.81		123	5	11.3	8.3
518		May 20	R	13	41	11.11		127	56	26.1	9.0
519		May 28	R	13	15	1.85		125	22	17.0	9.7
520		Apr 20	M	13	15	39.03		122	51	12.5	8.5
		May 1	M		45	38.53			54	15.7	8.0
521	81 Bootis η	May 5	M	13	18	9.60	5	70	54	1.6	
		19	R		18	9.60			54	52.8	
		21	R		45	9.12			54	51.7	
		22	R		18	9.63			54	51.7	
		June 1	M		18	9.58			54	51.3	

Separate Results of Madras Meridian Circle Observations in 1865

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wines	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
521	8 Bootis η	June 2	M	13	49	068		70	51	21	
		3	M		18	061			54	520	
		5	M		48	065	5		54	520	
		11	M		48	065	5		54	500	
522		May 7	M	13	50	3709		123	43	345	80
523	25759 Lilande	Apl 29	M	13	51	3929		67	21	294	75
		May 1	M		54	3929			1	293	75
		6	M		54	3928			21	296	75
		20	I		54	3903	5		21	299	50
		27	P		54	3930			21	300	
524	93 Vn ₁ mis τ	May 28	R	13	54	4054		87	47	78	
		29	R		54	4054			47	278	
		June 2	M		54	4052	3		47	268	
		3	M		54	4049			47	268	
		5	M		54	4045			47	267	
525	25806 Lilande	Apl 29	M	13	59	5157	3	67	10	362	75
		May 2	M		59	5142			10	374	75
		1	M		59	5146			10	350	75
		6	M		59	5146			10	345	75
526	6585 Taylor	May 8	M	14	1	1894		124	13	467	78
527		May 30	R	14	2	2239		120	3	564	
528	108 R 1 L	May 19	R	14	4	435	3	3	35	113	
	<i>sp</i>	Nov 9	M		4	413	3		35	112	
529	U Bootis V 4	May 27	R	14	4	1865		79	32	111	97
530	6616 Taylor	Apl 30	M	14	5	2622		146	46	318	
531		May 7	M	14	6	520	5	135	1	06	50
532	16 Bootis α	May 26	R	14	9	2480		70	(112	
		June 9	M		9	2472			6	122	

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
532	16 Bootis α	June 10	M	14	9	24.79		70	6	12.0	
		11	M		9	24.74			6	10.6	
		18	R		9	24.84			5	11.5	
533	100 Virginis λ	Apl 28	M	14	11	41.69		102	44	18.6	
		May 2	M		11	41.83			14	19.1	
		June 27	R		11	42.01			44	19.4	
534		May 8	M	14	12	26.89	5	136	49	32.4	9.3
535		Apl 30	M	14	14	30.90	3	122	35	29.6	8.9
536		May 9	M	14	15	15.99		122	11	16.7	
537	6709 Taylor	May 7	M	14	15	55.15	6	119	3	2.1	7.0
538		May 1	M	14	17	21.04		123	13	1.2	9.9
539	6740 Taylor	Apl 29	M	14	19	1.89		133	42	35.0	7.6
540		Apl 30	M	14	21	53.94		122	33	43.7	8.7
541	5962 Lacaille	May 18	R	14	22	38.49	5	129	46	28.6	8.0
542		May 8	M	14	23	38.57	5	136	54	8.5	8.0
543		May 4	M	14	24	9.13		123	45	17.8	8.0
41	25 Bootis ρ	May 20	R	11	25	55.17		59	1	32.7	
		22	R		25	55.58			1	33.1	
		June 2	M		2	55.10			1	33.1	
		3	M		25	55.1			1	32.7	
		9	M		25	55.1			1	35.1	
		18	R		25	55.46	6		1	33.7	
545		May 1	M	11	26	11.04		123	19	15.2	9.5
546		May 15	M	14	29	23.02		124	55	13.1	7.8
547	6027 Lacaille	Apl 30	M	14	31	0.63	5	122	47	2.2	7.7

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
549	R Bootis γ 1	May 16	R	14	31	9 03		62	40	30	7 4
		18	R		31	9 00		40	33		
		27	R		31	9 02		40	30		9 0
549		May 7	M	14	32	38 73		121	44	26	7 6
550	6849 Tallyr	May 8	M	14	32	44 22		136	41	24	7 7
551	5 Libr ϵ	May 11	M	14	38	24 82		101	52	48 4	
552	36 Bootis ϵ	May 22	R	14	39	0 12		62	20	15 0	
		25	R		39	0 08		20	17 7		
		June 9	M		39	0 16	5	20	15 9		
		10	M		39	0 23		20	18 0		
		18	R		39	0 06		20	48 1		
553		May 15	M	14	39	16 66		124	9	20 8	7 7
554	27022 Lalande	May 4	M	14	43	10 11		75	56	9 3	7 5
		5	M		43	10 44		56	9 7		7 6
		6	M		43	10 44		56	5 9		7 5
		18	R		43	10 41		56	10 4		
555	9 Libræ α	Apl 1	M	14	13	18 11	5	105	28	13 0	
		May 2	M		13	18 15		25	13 2		
		June 20	R		13	18 14		25	13 2		
		July 10	M		43	18 21		25	12 0		
556	27123 Lalande	May 7	M	11	17	19 89		109	27	7 4	7 8
		8	M		17	20 04		27	7 5		7 8
		9	M		47	20 02		27	5 9		
		27	R		17	20 09		27	7 9		9 0
557		May 15	M	11	51	31 68	5	123	12	29 6	8 9
558		May 8	M	11	57	38 39		131	30	27 2	8 3
559	43 Bootis ψ	May 29	R	14	55	34 52	5	62	31	0 1	
		June 10	M		58	34 56		30	59 2		

Separate Results of Nadir Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
559	13 Bootis ψ	June 11	M	14	58	34.54		62	30	59.8	
		July 10	M		58	34.45			30	58.4	
		11	M		58	34.53			30	58.6	
560	7079 Lajloi	May 11	M	15	3	16.26		123	7	1.1	
561		May 15	M	15	3	30.06		122	18	27.9	8.5
562	21 Librae ϵ^1	May 4	M	15	4	20.09		109	16	11.3	5.6
		30	R		4	20.08			16	11.6	
563	111 R P L	May 9	M	15	5	51.04	5	5	31	9.1	
	<i>sp</i>	Dec 12	M		5	51.46	3		31	8.0	
564		May 27	R	15	6	39.40	5	130	26	16.1	8.9
565	27 Librae δ	May 23	R	15	9	38.57		98	52	30.6	
		29	R		9	38.26			52	30.0	
		June 11	M		9	38.32			52	29.9	
		20	R		9	38.26	4		52	31.2	
		26	R		9	38.19			52	30.0	
		27	R		9	38.17			52	29.0	
566		May 21	R	15	11	47.26		130	23	46.9	9.2
567		May 15	M	15	11	8.23		123	7	17.9	9.2
568	S Serpentis Var 3	May 27	R	15	15	11.94	4	75	11	28.9	10.3
569		May 20	R	15	20	19.71		130	8	21.5	9.0
70	32 Librae ϵ^1	May 11	M	15	20	32.04		106	14	11.0	
		30	R		20	32.17			14	9.4	
571		May 28	R	15	21	37.08		129	25	17.1	9.0
572	7220 Lajloi	June 2	M	15	22	28.0		123	6	20.8	7.9
573	111 R P L	Dec 15	M	15	2	52.68	3	2	14	49.8	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863	No of Wires	Mean Polar Distance 1863	Magnitude
				<i>h m s</i>			
574	7210 Taylor	May 21	R	15 24 20.21		130 1 16.1	7.8
575		May 15	M	15 24 56.73		122 43 21.1	7.9
576	5 Coronæ Borealis α	May 23	R	15 28 53.12		64 49 21.2	
		June 27	R	28 53.23	5	49 20.2	
		July 10	M	28 53.33		49 19.2	
577		May 20	R	15 28 55.03		119 33 61.9	8.8
578		May 28	R	15 30 6.00		129 33 11.7	9.3
579	43 Libræ κ	May 4	M	15 31 3.55		109 13 51.7	5.0
580		May 18	R	15 31 46.79		129 1 16.1	5.3
581	XV 704 W B D	May 15	M	15 37 12.38		92 31 31.9	7.0
		16	R	37 12.47		31 37.8	8.5
		20	R	37 12.41	5	31 35.7	9.7
582	24 Serpentis α	May 23	R	15 37 31.29		83 8 27.6	
		June 20	R	37 31.28		8 27.9	
		26	R	37 31.26		8 27.5	
		27	R	37 31.27		8 26.9	
		July 10	M	37 31.23		8 26.3	
		13	M	37 31.19		8 26.7	
583	28787 Lalande	May 27	R	15 42 3.02		92 43 12.5	8.7
		29	R	42 2.82		13 12.7	
		June 9	M	12 2.84		48 11.1	8.0
584	R Corona Bor Var 1	May 20	R	15 42 55.73	1	61 25 10.8	7.8
		June 10	M	42 55.89		25 17.0	7.0
585	R Serpentis Var 2	May 16	R	15 44 22.70		74 26 27.8	9.1
586	40 Libræ θ	June 27	R	15 46 1.66	1	106 19 27.5	
587		June 1	M	15 50 59.16		113 45 3.9	7.0

— 37 34.4

— 54.9

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
588	7 Scorpi δ	June 27	R	15	52	11 19	1	112	13	43 1	
589	7439 Taylor	May 20	R	15	54	22 01	5	126	11	53 8	8 0
590	8 Scorpi β^1	Apl 28	P	15	57	28 62	5	109	25	38 6	
		May 21	R		57	28 56			25	39 0	
		30	R		57	28 52			25	38 2	
		June 26	R		57	28 15			25	39 3	
		July 13	M		57	28 14			25	38 1	
		11	M		57	28 53			25	38 1	
591	29391 Lalande	May 2	I	16	1	45 42		102	41	12 9	
		29	R		1	45 10			41	13 6	
		July 13	M		1	45 12			11	14 0	7 0
		14	M		1	45 52			11	13 1	7 0
592	116 R P L <i>sp</i> <i>sp</i>	June 30	R	16	4	55 30	3	4	18	37 2	
		Nov 21	P		4	55 12	3		18	33 8	
		26	R		4	55 76	3		18	36 8	
593	Δ VI 83 W B E	May 30	R	16	5	59 73	1	102	40	55 2	
594	1 Ophiuchi δ	July 16	R	16	7	10 31		93	20	20 9	
595	29610 Lalande	May 29	R	16	8	6 62	5	105	32	21 2	
596	R Scorpi ν 1	Apl 28	P	16	9	29 13	2	112	36	12 2	10 5
		May 1	P		9	29 32			36	11 3	10 3
		2	P		9	29 26	4		36	11 1	10 3
		16	R		9	29 55	3		36	15 1	10 7
597		July 18	R	16	9	39 76	4	112	33	22 5	10 0
598	20 Scorpi σ	June 1	M	16	12	52 00		115	15	37 9	
599	1552 O A S	May 30	R	16	13	10 71	4	107	21	51 8	9 0
600		June 2	M	16	14	7 95		116	10	55 2	7 5
601	U Scorpi ν 1	May 21	R	16	14	37 03	5	107	33	7 1	
		23	R		14	37 15	1		33	5 7	

Separat Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				h	m	s		°			
602		May 20	R	16	15	42.36	6	128	7	31.7	9.5
603	15607 O A S	June 11	M	16	16	48.33		107	11	21.1	9.0
		30	R		16	48.17	5		11	19.7	
		July 13	M		16	48.13			11	20.0	9.0
604		May 28	R	16	17	50.39	5	129	30	26.5	9.2
605	21 Scorpii α	Apl 28	P	16	21	0.81		116	7	29.2	
		May 1	P		21	0.69			7	25.1	
		2	I		21	0.70			7	27.6	
		4	M		21	0.73			7	27.6	
		5	M		21	0.68			7	28.0	
		July 13	M		21	0.70	5		7	27.9	
		14	M		21	0.60			7	26.1	
606	23 Scorpii τ	May 4	M	16	27	21.60		117	55	42.2	
		5	M		27	21.37			55	11.8	
607	5784 Brisbane	July 20	R	16	30	49.55	1	130	39	19.7	9.5
608		June 2	M	16	31	32.13		131	6	51.5	7.8
609	40 Hercules 3	May 2	P	16	36	7.11	6	58	8	51.2	
		July 11	M		36	7.32			8	47.2	
		16	R		36	7.20			8	50.9	
		13	R		36	7.25			8	50.6	
		Aug 3	M		36	7.30			8	52.5	
610	15952 O A S	May 20	I	16	39	18.72	6	111	55	24.7	9.2
611	S Hercules Var 3	May 2	P	16	45	39.77		74	49	32.0	8.0
		June 8	M		45	39.67			49	31.1	7.9
		9	M		45	39.60			49	32.6	7.8
612		May 5	M	16	48	49.65	5	125	31	11.1	8.0
613	27 Ophiuchi κ	June 4	M	16	51	10.94		80	21	33.6	
		23	R		51	11.04			21	35.0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
613	27 Ophiuchi κ	June 30	R	16	51	10 91		80	24	33 2	
		July 14	M		51	11 09	3		24	33 9	
		16	R		51	10 97			24	34 1	
		20	R		51	11 01			24	34 4	
		28	R		51	11 06			24	33 6	
		Aug 12	R		51	11 00	5		24	34 4	
614		June 2	M	16	52	11 10		122	48	45 1	8 2
615	16283 O A S	July 29	R	16	53	55 13	5	110	23	27 8	8 0
616	16288 O A S	June 1	M	16	56	24 05		119	50	1 1	7 5
617	7926 Taylors	July 11	M	16	59	41 77		136	50	57 9	8 0
618	61 Hercules α	May 1	L	17	8	24 17		75	27	4 1	
		2	L		8	21 34			27	4 8	
		June 29	R		8	24 01			27	4 7	
		July 1	M		8	23 90			27	3 7	
		18	R		8	24 01			27	3 8	
		23	R		8	24 02			27	5 0	
		28	R		8	24 07			27	4 2	
		Aug 3	M		8	23 96			27	3 7	
		12	M		8	21 05	2		27	3 7	
54 54 — (61)		June 3	M	17	8	55 55	5	124	4	10 4	8 0
620	42 Ophiuchi θ	June 1	M	17	13	35 93		114	51	32 1	
		2	M		13	35 91			51	33 2	
		July 1	M		13	35 88	5		51	31 8	
		13	M		13	35 83			51	31 8	
		18	R		13	35 86			51	32 6	
		20	R		13	35 92			51	32 9	
		23	R		13	35 78			51	34 5	
		Aug 3	M		13	35 78			51	32 9	
		7	M		13	35 84	3		51	31 9	
621	11 Ophiuchi δ	June 1	M	17	18	0 39		114	2	44 2	5 0
		2	M		18	0 27	5		2	44 0	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
622	45 Ophiuchi δ	May 5	M	17	18	36 0		119	41	21 7	
623	—Arae δ	July 29	R	17	18	11 27		100	33	53 2	
624		July 20	R	17	29	21 06		125	11	36 6	8 7
		Aug 3	M		29	21 17			14	34 7	8 9
625	55 Ophiuchi α	May 1	P	17	28	34 65		71	20	15 3	
		June 29	R		28	34 43			20	16 9	
		July 1	M		28	34 45			20	16 1	
		23	R		28	34 52			20	16 9	
		28	R		28	34 47			20	16 8	
626		Aug 24	R	17	34	30 41	3	126	15	2 1	10 2
627	58 Ophiuchi	June 29	R	17	35	13 26		111	36	16 9	
		30	R		35	13 18			36	46 5	
628		Aug 12	M	17	39	29 41	6	127	21	33 1	8 5
629		June 3	M	17	39	51 70	5	126	28	18 6	8 0
630		June 29	R	17	43	16 46		128	36	10 7	7 7
631		July 20	R	17	44	58 68	4	128	47	40 0	9 0
632	7504 Lacaille	June 10	M	17	48	28 07	5	129	6	46 9	7 0
633		June 29	R	17	50	20 57	5	130	50	17 6	8 7
634	4 Sagittarii δ	May 5	M	17	51	25 71		113	48	0 0	5 0
		Aug 24	R		51	25 53			47	59 4	
635	—Sagittarii γ	June 3	M	17	56	16 20	4	119	34	56 7	
636		Aug 24	R	18	2	45 05	6	131	44	29 9	9 0
		28	M		2	45 30	4		14	28 9	9 0
637		Aug 27	R	18	4	45 03	4	120	43	36 2	10 5

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
638	13 Sagittarii μ^1	May 5	M	18	5	34 20	5	111	5	28 4	
		June 2	M		5	34 24			5	27 9	
		3	M		5	34 18			5	27 4	
		29	R		5	34 18			5	28 4	
		July 29	R		5	34 17	4		5	30 7	
		Aug 3	M		5	34 19			5	27 6	
		12	M		5	34 09			5	27 5	
		15	M		5	34 18			5	28 3	
		Sep 4	M		5	34 14	5		5	28 2	
639		June 10	M	18	6	1 14		122	25	10 8	8 0
640	23 Ursae Minoris δ s p	Jan 9	M	18	16	32 55	3	3	23	46 4	
		s p 10	M		16	33 23	3		23	46 8	
		s s 19	R		16	32 51	3		23	46 5	
		s p 20	R		16	32 52	3		23	46 5	
		p Feb 3	R		16	32 41	2		23	47 5	
		s p 9	R		16	31 89	3		23	49 1	
		s p 11	R		16	32 02	3		23	48 0	
		s p 17	R		16	32 86	3		23	47 3	
		s p Mar 2	R		16	31 99	3		23	50 9	
641	22 Sagittarii λ	June 3	M	18	19	30 91		115	29	36 7	
642	—Telescopii δ	Aug 24	R	18	21	53 73		135	50	49 0	
643		Aug 24	R	18 ^h	28	12 72	5	135	34	34 5	8 9
644	3 Lyrae α	July 2	M	18	32	17 92		51	20	30 6	
		3	M		32	17 91			20	31 1	
		20	R		32	17 92			20	31 9	
		Aug 12	M		32	18 06			20	31 6	
		15	M		32	17 94			20	32 3	
		Sep 4	M		32	17 90			20	32 4	
645		July 10	M	18	35	44 43	4	137	11	3 4	7 5
		Aug 22	R		35	44 54			11	5 1	9 2
		24	R		35	44 28			11	3 3	9 2
		26	R		35	44 58			11	4 3	9 5

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
646	7872 Lacaille	Aug 27	R	18	42	15 77		136	48 70		6 3
647	7878 Lacaille	Sep 8	M	18	42	48 83		136	41	13 0	6 5
648	10 Lyræ β Var 1	July 2	M	18	45	1 26		56	17	39 7	
		3	M		45	1 26		47	40 2		
		Aug 26	R		45	1 19		17	11 1		
		Sep 12	M		45	1 30	5	47	11 2		
649		Sep 15	M	18	46	49 50	4	137	44	59 3	8 0
650	18 Lyræ Var 2	July 31	R	18	51	9 74	5	46	13	59 1	
651		Aug 22	R	18	51	58 59		149	55	55 2	9 3
652	39 Sagittarii α	June 30	R	18	56	28 18		111	56	19 1	
		July 1	M		56	28 30		56	18 1		
653	17 Aquilæ 3	July 2	M	18	59	6 81		76	20	14 6	
		3	M		59	6 57		20	16 0		
		Aug 22	R		59	6 71	4	20	15 9		
		26	R		59	6 69		20	16 8		
		, 28	M		59	6 68		20	16 4		
		Sep 12	M		59	6 62		20	16 8		
654	181 R P L <i>s p</i>	Jan 24	R	18	59	10 74	3	3	28	5 1	
		Mar 12	M		59	10 15	2	28	3 7		
655	R Aquilæ Var 2	July 31	R	18	59	46 23	4	81	58	30 2	9 3
656	41 Sagittarii π	June 30	R	19	1	36 73		111	14	16 6	
		Aug 24	R		1	36 80		14	16 5		
657		July 13	M	19	3	1 64		139	22	47 1	8 0
658	T Sagittarii Var 3	July 31	R	19	8	19 78	5	107	12	28 4	8 9
		Aug 3	M		8	19 73		12	27 3		
		12	M		8	19 87	4	12	28 0		8 7
		24	R		8	19 65	5	12	29 3		9 4

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
659	R Sagittarii Var 1	Aug 26	R	19	8	39 23		109	32	44 1	8 7
		Sep 15	M		8	39 22			32	43 4	9 1
660		July 31	R	19	9	56 41	5	107	9	47 9	8 3
		Aug 3	M		9	56 44	6		9	47 5	
		24	R		9	56 43	5		9	42 7	8 5
661		July 10	M	19	9	59 69		146	13	2 1	8 0
662	2 α Aquilæ ω	July 3	M	19	11	23 16		78	38	57 7	
		Aug 22	R		11	23 08			38	57 8	
		28	M		11	23 11			38	56 8	
		Sep 4	M		11	23 12			38	57 3	
		12	M		11	23 08			38	57 5	
663	44 Sagittarii ρ^1	June 4	M	19	13	43 45	4	108	6	6 5	
		July 29	R	19	13	43 46			6	7 7	
664	4 α Sagittarii ρ^2	Aug 24	R	19	13	51 24	5	108	33	32 8	
665	30 Aquilæ δ	July 2	M	19	18	35 37		87	9	19 4	
		Aug 27	R		18	35 29			9	21 1	
		Sep 14	M		18	35 41			9	20 3	
		, 15	M		18	35 23	2		9	20 9	
666	8950 Taylor	July 10	M	19	22	3 94	5	143	28	11 1	6 0
667	52 Sagittarii h^2	July 31	R	19	28	21 89		115	10	57 8	
		Aug 24	R		28	21 96			10	57 8	
668	8173 <i>Donnell</i>	July 10	M	19	31	32 04	5	143	15	37 3	
669	R Cygni Var 3	Aug 22	R	19	33	10 30	4	40	4	55 5	10 3
670	56 Sagittarii f	June 3	M	19	38	22 08		110	5	3 1	
671	50 Aquilæ γ	Aug 24	R	19	39	44 61		79	43	5 8	
		27	R		39	44 65			43	6 4	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
672	50 Aquilæ γ	Aug 28	M	19	39	44.63		79	43	5.7	
		Sep 4	M		39	44.70			43	3.0	
		8	M		39	44.63			43	5.6	
672	53 Aquilæ α	Aug 24	R	19	44	5.86	5	81	29	28.2	
		Sep 14	M		44	5.86			29	27.9	
673	— Cygni χ Var 2	July 31	R	19	45	17.88	5	57	25	51.3	5.7
674	55 Aquilæ η	Aug 22	R	19	45	29.00		89	20	37.1	5.0
		28	M		45	29.49			20	36.0	5.0
675	60 Aquilæ β	Aug 24	R	19	48	34.90		83	55	58.9	
		Sep 8	M		48	34.92			55	58.5	
		12	M		48	34.88			56	0.1	
		14	M		48	34.85			55	59.7	
		15	M		48	34.87			55	58.8	
676		July 13	M	19	49	28.86	5	145	56	59.3	8.5
677		Aug 22	R	19	52	55.25	5	147	11	2.4	9.2
678	— Ursæ Minoris λ s p	Feb 4	R	20	1	4.48	3	1	6	4.3	
		Mar 3	M		1	3.85	3		6	4.9	
		5	M		1	3.38	3		6	3.7	
679	R Capricorni Var 1	Aug 27	R	20	3	37.20	5	104	40	14.7	10.0
		Oct 6	M		3	37.07			40	12.4	9.8
680		July 13	M	20	4	3.47		147	14	43.1	8.2
681		Sep 15	M	20	7	38.36	5	81	22	38.0	9.2
682	R Sagittæ Var 1	July 31	R	20	7	49.58 5.44	5	73	41	11.0	9.7
		Oct 5	M		7	49.47 8.21			41	10.6	9.7
683	5 Capricorni α^1	July 1	M	20	10	3.01		102	55	43.7	
164	6 Capricorni α	June 4	M	20	10	27.12		102	58	0.2	
		July 29	R		10	26.97			58	3.2	

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				h	m	s		°			
684	6 Capricorn α^2	Aug 28	M	20	10	26 93		102 58 40 27			
		Sep 8	M		10	27 02		58 09			
		14	M		10	26 97		58 12			
		18	R		10	26 94		58 08			
		23	R		10	26 90		58 08			
685	34 Cygni	Aug 22	R	20	12	44 12	3	52 23 30 7			6 0
		Oct 2	M		12	44 52		23 31 4			5 9
		, 6	M		12	44 41		23 28 9			5 9
686	— Pavonis α	July 29	R	20	14	47 13	4	147 10 14 4			
687	8441 Lacaille	Oct 7	M	20	18	9 46		121 7 9 6			8 6
688	11 Capricorni ρ	June 4	M	20	21	2 53		108 15 49 6			
		July 1	M		21	2 45		15 49 8			
		31	R		21	2 49	5	15 50 8			
		Aug 18	R		21	2 51		15 51 4			
		, 27	R		21	2 53		15 50 0			
		Sep 15	M		21	2 46	5	15 50 0			
		, 18	R		21	2 50	6	15 49 5			
		, 23	R		21	2 48		15 51 2			
		Oct 1	M		21	2 37		15 50 3			
		, 8	M		21	2 56		15 50 3			
		, 9	M		21	2 47		15 49 5			
		10	M		21	2 50		15 49 9			
689		Oct 7	M	20	27	46 43		143 16 38 9			8 6
690	24 Cephei (Hev)	Oct 8	M	20	28	56 11	2	1 17 20 2			7 9
691		Oct 2	M	20	29	40 82	5	143 52 14 5			9 0
692	143 R P I	Oct 6	M	20	29	50 61	5	5 18 42 2			
693		Oct 10	M	20	30	47 79		149 55 34 7			8 1
694	S Capricorni Var 2	Aug 22	R	20	33	53 78		109 32 34 9			9 0
		Sep 14	M		33	53 92		32 33 6			9 3

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				h	m	s					
695	22. 7. 41. 3. 5	July 31	R	20	36	44.82		73	23	17.5	9.2
		Sep 18	R		36	44.84			23	16.9	8.8
696	50 Cygni α	July 29	R	20	36	45.64		45	12	29.3	
697	S Delphini Var 2	Oct 9	M	20	36	46.06		73	24	9.9	8.9
698		Oct 7	M	20	38	4.22		143	3	29.6	0.3
699	2 Aquarii ϵ	Aug 27	R	20	40	15.30		100	59	42.4	
700	8571 Lacaille	Oct 10	M	20	42	48.35		150	13	10.8	7.7
701	9633 Taylor	July 2	M	20	44	30.80	3	101	50	0.6	7.0
702	6 Aquarii μ	Aug 27	R	20	45	15.65		99	29	42.9	
703		Oct 8	M	20	47	35.56		149	2	5.8	8.9
704	32 Vulpeculæ	Aug 22	R	20	48	43.20	5	62	27	39.6	
		Sep 18	R		48	43.21			27	41.2	
705		Oct 7	M	20	53	53.28	4	112	50	27.0	9.1
706	R Vulpeculæ Var 2	Aug 27	R	20	58	23.38	3	66	42	55.8	10.5
		Sep 26	R		58	23.28	5		42	54.0	9.5
707		Oct 10	M	20	58	30.79		148	52	50.0	9.8
708	9772 Taylor	Sep 14	M	21	0	23.07		145	7	32.1	7.0
709	61 Cygni (1st)	Aug 18	R	21	0	45.14		51	55	22.8	
710	13 Aquarii ν	July 2	M	21	2	7.64		101	55	26.6	
		3	M		2	7.58	4		50	28.1	
711	64 Cygni 5	Aug 18	R	21	7	6.28		60	20	1.7	
		Sep 30	R		7	6.25			20	1.9	
		Oct 1	M		7	6.32			20	1.0	

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
711	64 Cygni 3	Oct	3	M	21	7	6 36		60	20	15	
			5	M		7	6 30			20	08	
			23	R		7	6 35			20	20	
712	8748 Lacaille	Sep	14	M	21	9	43 32	4	145	7	56 0	8 9
713	22 Aquarii β	July	31	R	21	24	20 59	5	96	10	19 9	
		Sep	23	R		24	20 58			10	20 3	
			28	R		24	20 71			10	20 9	
			30	R		24	20 68			10	20 0	
		Oct	1	M		24	20 73			10	20 0	
			5	M		24	20 55			10	19 8	
			7	M		24	20 68			10	19 5	
			8	M		24	20 64			10	19 9	
			9	M		24	20 62			10	19 8	
			10	M		24	20 65			10	20 5	
			23	R		24	20 70			10	20 7	
714		Sep	14	M	21	25	45 04	5	140	23	42 6	9 0
715	23 Aquarii δ	July	31	R	21	30	27 30		98	28	1 7	
		Sep	23	R		30	27 29			28	1 2	
716	10032 Taylor	Oct	6	M	21	30	37 36	5	142	58	30 5	6 3
717	10065 Taylor	Oct	8	M	21	34	23 38	4	145	7	22 2	6 2
718	8 Pegasi ϵ	Sep	26	R	21	37	27 42	3	80	45	7 1	
			28	R		37	27 37			45	6 6	
		Oct	3	M		37	27 40			45	6 1	
			6	M		37	27 38			45	5 8	
			7	M		37	27 36			45	6 2	
			10	M		37	27 36			45	5 6	
719	— Cephei μ Var 1	Aug	24	R	21	39	18 68		31	50	51 1	5 5
		Oct	5	M		39	18 97			50	52 5	5 2
			9	M		39	18 94			50	51 0	5 5
720	16 Pegasi	Sep	26	R	21	46	49 75		64	43	7 0	
			28	R		46	49 70			48	6 9	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
720	16 Pegasi	Sep 30	R	21	46	49.73		64	43	75	
		Oct 3	M		46	49.76			43	84	
		6	M		46	49.80			43	61	
		7	M		46	49.73			43	82	
		8	M		46	49.67			43	70	
		, 23	R		46	49.67			43	79	
721	10190 Taylor	Oct 14	M	21	51	1.58		146	32	12.3	6.0
722		Aug 24	R	21	53	45.64	5	100	49	33.5	9.7
		Nov 2	M		53	45.94	3		49	34.0	9.6
723		Sep 14	M	21	58	8.61	1	136	2	51.4	9.3
724	34 Aquarii α	Sep 30	R	21	58	44.73		90	59	3.9	
		Oct 1	M		58	44.58			59	3.1	
		3	M		58	44.71			59	4.3	
		5	M		58	44.71			59	4.0	
		14	M		58	44.73			59	3.7	
725		Oct 5	M	22	5	21.38		101	6	5.1	9.6
		6	M		5	21.04	3		6	5.7	9.4
726		Oct 14	M	22	9	2.20		98	22	21.1	7.9
727		Oct 7	M	22	9	3.86	5	146	27	35.2	9.0
728	43 Aquarii θ	Aug 27	R	22	9	36.11		98	27	51.3	
729	48 Aquarii γ	July 31	R	22	14	34.62		92	4	36.0	
		Aug 27	R		14	34.72	6		4	36.0	
730		Oct 17	R	22	15	17.87	5	82	47	40.5	
731		Oct 6	M	22	18	46.99	5	140	46	3.8	9.6
732	150 R P L	<i>sp</i> Feb 2	S	22	23	41.72	3	4	34	56.7	
		<i>sp</i> Mar 9	M		23	42.63	3		35	0.1	
		<i>sp</i> 18	M		28	42.54	3		35	0.3	

Separate Results of Malpas Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863	No of Wires	Mean Polar Distance 1863	Magnitude
				<i>h m s</i>			
732	150 R P L <i>s p</i>	Apl 30	M	22 23 42 30	3	4 34 59 6	
		Nov 2	M	23 42 04	3	35 23	
		4	M	23 41 96	3	35 24	
733	21 Cephei δ	July 31	R	22 24 5 40	5	32 17 8 7	5 7
		Sep 8	M	24 5 23	3	17 10 0	5 5
		Oct 5	M	24 5 34		17 9 3	5 5
		14	M	24 5 54		17 10 3	5 6
734		Oct 7	M	22 24 36 10	5	146 30 51 5	9 8
735		Oct 6	M	22 25 48 37		141 30 31 5	8 0
736	62 Aquarii η	July 31	R	22 28 18 80	5	00 49 23 4	
		Sep 25	R	28 18 97		49 23 0	
		Oct 2	M	28 18 81		40 22 4	
		9	M	28 18 82		40 21 7	
		, 13	M	28 19 05		40 21 9	
		14	M	28 18 96		40 23 4	
		, 16	R	28 18 90		40 22 5	
		17	R	28 18 91		40 21 4	
		Nov 3	M	28 18 83		49 23 5	
737	<i>a 77 Taylor</i>	Oct 8	M	22 32 3 46		118 8 5 9	6 0
738	42 Pegasi δ	Oct 5	M	22 34 37 76		79 52 58 5	
		10	M	34 37 60		52 58 3	
		, 17	R	34 37 74		52 59 1	
		Nov 4	M	31 37 59		53 0 4	
739		Oct 6	M	22 37 35 40	5	145 46 57 5	6 6
740	XXII 844 W B T	Sep 26	R	22 40 31 06		87 48 59 4	8 9
741		Oct 16	R	22 40 48 26		142 38 21 7	9 1
		Nov 4	M	40 48 65	3	38 19 5	9 1
742		Oct 7	M	22 44 39 96		145 38 18 7	10 0
		27	R	44 40 19	5	38 20 5	9 8

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>	<i>'</i>		
743		Oct	8	M	22	44	46 67		148	34	50 3	7 8
		Nov	11	M		44	46 63			31	51 6	8 0
744	S Aquarii Var 2	Oct	17	R	22	49	45 50		111	4	27 6	8 9
			27	R		49	45 65			4	25 7	8 7
745	24 Piscis Australis α	Oct	6	M	22	50	4 32		120	20	50 7	
			7	M		50	4 38			20	51 0	
			9	M		50	4 38			20	51 7	
			14	M		50	4 38			20	52 6	
			16	R		50	4 38			20	51 5	
		Nov	6	M		50	4 42			20	52 8	
			13	M		50	4 44			20	51 6	
			14	M		50	4 46			20	51 9	
746		Oct	10	M	22	51	22 53		151	33	39 0	9 2
747		Oct	13	M	22	51	47 53		85	26	50 2	9 3
748	9353 Lacaille	Sep	8	M	22	56	32 24		144	41	54 1	6 0
749		Nov	7	M	22	57	7 80		140	38	17 9	9 0
750	53 Pegasi β Var 1	Oct	5	M	22	57	8 24	5	62	39	36 2	
751	54 Pegasi α	Oct	8	M	22	57	56 18		75	31	54 3	
			16	R		57	56 23			31	53 7	
			24	R		57	56 31			31	51 3	
		Nov	11	M		57	56 24	5		31	51 4	
752		Oct	9	M	22	59	16 14		150	22	26 9	9 8
753	9377 Lacaille	Oct	10	M	23	2	8 81		151	18	22 3	6 8
		Nov	13	M		2	8 60			18	22 3	6 2
754	90 Aquarii ϕ	Aug	29	R	23	7	13 63	5	96	47	14 0	
755	9400 Lacaille	Oct	9	M	23	7	22 68		150	26	26 5	8 3
			26	R		7	22 76			26	25 4	8 0

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation		Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>		<i>'</i>			
755	9405 Lacaille	Oct	27	R	23	7	22 78	5	150	26	24 5	7 5
		,	30	R		7	22 85	5		26	23 4	8 8
756	6 Piscium γ	Oct	13	M	23	10	3 69		87	27	57 4	
			14	M		10	3 69			27	59 2	
			16	R		10	3 77			27	57 5	
			17	R		10	3 70			27	57 1	
		Nov	3	M		10	3 84			27	56 6	
			5	M		10	3 76			27	58 3	
			11	M		10	3 82			27	57 4	
			13	M		10	3 75			27	57 7	
757		Oct	10	M		11	2 03		151	16	3 7	9 8
758		Nov	14	M	23	11	15 10	5	136	54	41 3	8 6
759		Sep	8	M	23	12	4 13		137	4	14 6	8 5
760	96 Aquarii	Aug	28	M	23	12	17 65		95	52	21 0	5 5
761	4040 Groombridge	Oct	27	R	23	12	55 84	2	17	3	35 0	7 0
762	10748 Taylor	Oct	7	M	23	17	29 48	5	147	36	2 7	5 9
		Nov	6	M		17	29 44			36	3 3	6 0
			13	M		17	29 36			36	3 3	5 9
763		Oct	8	M	23	19	38 74		151	38	24 2	9 9
764	8 Piscium κ	Sep	25	R	23	19	54 50		89	29	39 6	
			26	R		19	54 55			29	39 0	
		Oct	2	M		19	54 68			29	40 0	
			13	M		19	54 48			29	39 9	
		,	17	R		19	54 56			29	38 3	
			24	R		19	54 50			29	40 4	
		,	26	R		19	54 50			29	39 3	
		,	31	R		19	54 52			29	38 8	
		Nov	3	M		19	54 52			29	39 4	
			4	M		19	54 64			29	39 8	
			5	M		19	54 59			29	38 9	
			20	R		19	54 53			29	39 6	

Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
765		Sep 8	M	23	20	59 71		137	28	8 9	9 5
		Oct 30	R		20	59 97			28	5 0	9 0
766		Nov 7	M	23	23	38 84		148	57	55 0	8 8
767	10804 Taylor	Oct 7	M	23	27	26 26	3	147	34	54 1	6 4
		27	R		27	26 36			34	54 7	6 7
		Nov 4	M		27	26 66			34	52 4	6 0
768		Oct 6	M	23	27	42 50	5	118	15	5 2	5 8
769	158 R P L	<i>sp</i> Mar 20	R	23	27	49 96	4	3	26	54 7	
		<i>sp</i> 24	R		27	49 83	3		26	52 1	
		<i>sp</i> , 26	R		27	49 78	3		26	55 9	
		<i>sp</i> „ 28	R		27	49 72	3		26	53 3	
		<i>sp</i> , 31	R		27	49 62	3		26	55 6	
		<i>sp</i> Apl 23	R		27	49 91	3		26	53 3	
		<i>sp</i> May 2	M		27	49 68	3		26	56 8	
		Sep 28	R		27	49 82	3		26	53 7	
		Oct 17	R		27	50 29	3		26	55 1	
		, 31	R		27	49 79	3		26	54 8	
		Nov 9	M		27	50 01	3		26	54 4	
770		Sep 8	M	23	29	51 04	6	137	20	27 5	10 0
		Oct 30	R		29	51 35			20	23 7	9 0
771		Nov 7	M	23	30	21 40	5	148	57	0 4	8 4
772	17 Piscium :	Aug 29	R	23	32	54 22		85	6	57 6	
		Sep 20	R		32	54 26			6	58 1	
		26	R		32	54 28			6	57 4	
		Oct 2	M		32	54 32			6	57 2	
		26	R		32	54 25			6	50 4	
		27	R		32	54 26	5		6	58 7	
		Nov 2	M		32	54 22			6	59 2	
		3	M		32	54 30			6	58 7	
		5	M		32	54 25			6	57 8	
		11	M		32	54 31			6	57 9	
		20	R		32	54 27			6	58 2	

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Separate Results of Madras Meridian Circle Observations in 1863

Number	Star	Date of Observation	Observer	Mean Right Ascension 1863			No of Wires	Mean Polar Distance 1863			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
773	— Sculptoris δ	Nov 4	M	23	34	17 16	5	147	27	44 8	9 2
774		Sep 28	R	23	36	43 67	5	106	2	41 7	9 2
775		Aug 29	R	23	41	47 10		118	53	15 5	
		Oct 2	M		41	47 00			53	16 7	
		13	M		41	47 09			53	17 2	
		26	R		41	47 17			53	16 7	
		27	R		41	47 23			53	16 4	
		30	R		41	46 97			53	15 6	
		31	R		41	47 08			53	16 3	
		Nov 2	M		41	47 19			53	17 5	
		4	M		41	47 04			53	16 7	
		5	M		41	47 07			53	16 2	
		6	M		41	47 09			53	17 8	
		7	M		41	47 04			55	16 1	
		, 9	M		41	47 14			53	16 0	
776	Oct 10	M	23	42	0 32		150	50	19 7	9 2	
	Nov 20	R		42	0 21	5		50	17 9	8 0	
777	9038 Lacaille	Oct 8	M	23	46	58 30		150	18	19 0	7 7
		Nov 11	M		46	58 35			18	20 0	7 8
778	R Cassiopeæ V u 3	Sep 28	R	23	51	27 44	5	39	22	30 2	9 5
779		Nov 13	M	23	51	55 83	5	143	16	18 8	9 4
780	28 Piscium ω	Aug 29	R	23	52	16 69		83	53	42 3	
		Oct 27	R		52	16 61			53	43 2	
		30	R		52	16 60			53	42 2	
		Nov 2	M		52	16 56			53	43 7	
		6	M		52	16 56			53	43 9	
781	10990 Taylor	Oct 10	M	23	56	50 96		148	35	29 9	9 3
		Nov 11	M		56	50 80	5		35	30 1	9 1
782	10994 Taylor	Oct 9	M	23	57	44 29		147	36	20 6	8 0

MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1863

REDUCED TO JANUARY 1 OF THAT YEAR

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
1	21 Androm α (<i>Alpherat</i>)	20		0	1	18 65	61	39	59 5	4	0 84
2		63	2	0	6	3 64	148	40	36 5	2	0 82
3	88 Pegasus γ (<i>Algemb</i>)	27		0	6	10 97	75	84	43 5	6	0 81
4		89	2	0	9	19 89	149	82	11 4	2	0 82
5		94	1	0	12	44 45	150	26	58 0	1	0 84
6	41 Piscium δ	60		0	13	32 96	82	34	16 0	1	0 73
7	R Andromedæ Var 1	84	5	0	16	48 16	52	10	55 4	5	0 76
8		97	4	0	17	34 73	149	85	29 5	4	0 83
9	45 Piscium	68		0	18	33 19	83	3	59 8	3	0 84
10	12 Ceti	65		0	23	2 81	94	42	54 2	6	0 86
11		105	1	0	25	13 92	76	9	33 2	1	0 89
12		96	6	0	23	50 66	89	7	55 6	7	0 88
13		96	9	0	30	44 81	89	7	54 3	10	0 80
14	18 Cassiopeæ α Var 1	80		0	32	45 ¹⁰ 34	34	12	54 1	2	0 93
15	1097 Lalande	81	6	0	34	32 75	89	0	17 3	6	0 86
16	1123 Lalande	90	8	0	35	38 90	89	3	21 7	8	0 87
17	16 Ceti β	20		0	36	42 69	108	44	20 9	2	0 94
18	1198 Lalande	88	8	0	38	3 50	88	56	37 0	9	0 90
19	0 653 W B E	95	8	0	38	34 94	89	2	32 4	9	0 89
20	63 Piscium δ	49		0	41	34 55	83	9	41 0	2	0 77
21		93	5	0	41	37 03	89	6	56 0	6	0 91
22		99	9	0	42	5 98	88	49	48 6	10	0 86
23	0 806 W B E	97	7	0	46	36 84	88	50	6 3	7	0 85
24		91		0	47	52 11	133	47	34 4	1	0 75
25	1638 Lalande	78	6	0	50	37 46	88	57	25 0	7	0 87
26	1639 Lalande	89	5	0	50	39 34	88	38	54 9	7	0 89
27	271 Lacaille	78	1	0	52	39 79	151	26	17 1	1	0 77
28	1784 Lalande	81	7	0	54	55 91	88	12	48 3	7	0 86
29	71 Piscium ϵ	46		0	55	50 07	82	50	54 5	11	0 97
30	1879 Lalande	79	6	0	57	40 82	88	25	15 6	7	0 86
31	0 1031 W B E	90	7	0	59	4 66	88	6	8 9	7	0 80
32		98	10	1	2	8 88	87	57	27 7	10	0 83
33	1 15 W B E	94	9	1	2	57 03	87	39	1 8	9	0 93
34	2069 Lalande	87	5	1	3	24 39	88	10	34 9	7	0 93
35	33 Ceti	63		1	3	30 63	88	17	5 7	4	0 99

7—R Andromedæ Var 1—Period, 405 days—Range 6th to 13th magnitude
 12 13 15 16 18 19 21 22 23 25 26 28 30 31 32 33 34 35 Comparison stars used with Mars in
 opposition in 1862 for investigation of the constant of Solar Parallax
 14— α Cassiopeæ Var 1—Irrregular Range 22 to 28 magnitude

45 10

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Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
1	21 Andromedæ α	+ 3 0761	+ 0 0182	+ 0 009	- 20 056	+ 0 013	+ 0 15	4
2		+ 3 0140	- 0 0449		- 20 048	+ 0 021		
3	88 Pegasi γ	+ 3 0812	+ 0 0100	0 000	- 20 049	+ 0 022	+ 0 02	26
4		+ 2 9795	- 0 0452		- 20 039	+ 0 027		
5		+ 2 9411	- 0 0453		- 20 024	+ 0 033		
6	41 Piscium δ	+ 3 0824	+ 0 0066	- 0 002	- 20 020	+ 0 036	- 0 01	66
7	R Andromedæ V 1	+ 3 1481	+ 0 0271		- 20 001	+ 0 043		
8		+ 2 8975	- 0 0419		- 19 996	+ 0 034		
9	45 Piscium	+ 3 0853	+ 0 0066		- 19 989	+ 0 046		89
10	12 Ceti	+ 3 0809	+ 0 0008	- 0 002	- 19 955	+ 0 055	+ 0 01	112
11		+ 3 1084	+ 0 0108		- 19 933	+ 0 059		
12		+ 3 0746	+ 0 0039		- 19 896	+ 0 065		
13		+ 3 0748	+ 0 0040		- 19 875	+ 0 069		
14	18 Cassiopæ α Var 1	+ 3 3519	+ 0 0553	+ 0 006	- 19 851	+ 0 080	+ 0 04	169
15	1097 Lalande	+ 3 0755	+ 0 0043		- 19 828	+ 0 076		
16	1123 Lalande	+ 3 0755	+ 0 0044		- 19 814	+ 0 079		
17	16 Ceti β	+ 2 9997	- 0 0055	+ 0 013	- 19 799	+ 0 080	- 0 02	196
18	1198 Lalande	+ 3 0761	+ 0 0045		- 19 779	+ 0 083		
19	0 658 W B E	+ 3 0758	+ 0 0046		- 19 772	+ 0 084		
20	63 Piscium δ	+ 3 1009	+ 0 0079	+ 0 003	- 19 727	+ 0 090	+ 0 05	222
21		+ 3 0758	+ 0 0047		- 19 726	+ 0 089		
22		+ 3 0770	+ 0 0048		- 19 718	+ 0 090		
23	0 806 W B E	+ 3 0776	+ 0 0051		- 19 642	+ 0 099		
24		+ 2 8063	- 0 0185		- 19 619	+ 0 093		
25	1638 Lalande	+ 3 0774	+ 0 0052		- 19 567	+ 0 107		
26	1630 Lalande	+ 3 0790	+ 0 0054		- 19 567	+ 0 107		
27	271 Lacaille	+ 2 5126	- 0 0289		- 19 529	+ 0 092		276
28	1784 Lalande	+ 3 0820	+ 0 0058		- 19 481	+ 0 115		
29	71 Piscium ϵ	+ 3 1125	+ 0 0087	- 0 002	- 19 463	+ 0 119	0 00	288
30	1879 Lalande	+ 3 0813	+ 0 0058		- 19 423	+ 0 120		
31	0 1081 W B E	+ 3 0834	+ 0 0061		- 19 392	+ 0 123		
32		+ 3 0849	+ 0 0063		- 19 323	+ 0 129		
33	1 15 W B E	+ 3 0870	+ 0 0065		- 19 304	+ 0 130		
34	2089 Lalande	+ 3 0837	+ 0 0062		- 19 293	+ 0 131		
35	83 Ceti	+ 3 0830	+ 0 0062	- 0 003	- 19 290	+ 0 131	+ 0 02	344

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
(1st) 36	86 Piscum 3 \wedge	60		1	6	34.48	88	9	07	3	0.79
37	1101 W B E	89	6	1	7	42.74	87	54	180	7	0.90
38	1 Urs Min α (<i>Polaris</i>)	20		1	8	59.64	1	25	155	9	0.46
39		98	8	1	9	13.01	87	42	245	8	0.85
40	45 Ceti θ	30		1	17	10.52	98	53	295	12	0.98
41		81	2	1	23	24.95	87	44	172	2	0.92
42	R Piscum Var 1	102	1	1	23	34.40	87	49	484	1	0.98
43	99 Piscum η	40		1	24	9.33	75	21	484	10	0.90
44	102 Piscum π	60		1	29	50.21	78	33	391	1	0.82
45	525 Taylor	59	2	1	30	6.98	148	50	287	2	0.84
46	539 Taylor	56	2	1	31	43.67	148	58	166	2	0.84
47	α Eridani (<i>Achernar</i>)	10		1	32	36.71	147	56	27	2	0.93
48	106 Piscum ν	47		1	34	18.28	85	12	254	5	0.89
49	503 Lacaille	79	2	1	35	40.96	151	41	368	2	0.88
50	507 Lacaille	62	2	1	37	6.50	151	28	503	2	0.88
51	110 Piscum \circ	45		1	38	9.67	81	31	598	1	0.89
52		93	2	1	39	51.51	149	27	401	2	0.83
53		97	2	1	46	7.56	148	58	151	2	0.90
54	6 Arctus β	27		1	47	4.60	69	51	488	13	0.92
55		94	2	1	48	31.09	150	5	310	2	0.87
56	582 Lacaille	86	2	1	50	52.76	145	44	396	2	0.84
57		96	2	1	59	21.58	150	2	499	2	0.87
58	13 Arctus α	20		1	59	27.31	67	11	153	10	0.94
59	630 Lacaille	60	2	1	59	46.48	145	32	179	2	0.86
60		96	2	2	1	1.59	149	49	219	2	0.83
61	697 Taylor	74	2	2	1	43.93	145	44	159	2	0.90
62	17 Arctus η	60		2	5	8.15	69	26	55	1	0.96
63	677 Lacaille	80	1	2	6	54.10	149	47	528	1	0.85
64		98	1	2	6	56.71	148	39	467	1	0.86
65	67 Ceti	60		2	10	9.05	97	3	200	6	0.95
66	68 Ceti \circ Var 1	78	1	2	13	25.64	98	36	86	1	0.96
67		97	2	2	13	56.34	148	27	139	2	0.83
68		81	2	2	15	37.88	152	34	279	2	0.91
69	818 Taylor	83	2	2	19	6.29	147	26	149	2	0.82
70	73 Ceti δ^2	45		2	20	52.64	82	9	212	8	0.92

37—39—Comparison stars used with Mars in opposition in 1862 for investigation of the constant of Solar Parallax

42—R Piscum Var 1—Period, 345 days Range 7.5 to 12th magnitude

66—Mira Ceti Var 1—Period 331 days Range 2nd to 10th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B. A. C.
		Annual Procession	Secular Variation	Proper Motion	Annual Procession	Secular Variation	Proper Motion	
		s	s	s				
36	56 Piscium γ	+ 3 1180	+ 0 0090		- 19 215	+ 0 139		368
37	1101 W B E	+ 3 0803	+ 0 0066		- 19 186	+ 0 139		
38	1 Urs Min α	+ 19 0547	+ 13 1148	+ 0 065	- 19 153	+ 0 832	0 00	360
39		+ 3 0880	+ 0 0008		- 19 148	+ 0 142		
40	4, Ceti θ	+ 3 0029	+ 0 0018	- 0 007	- 18 929	+ 0 154	+ 0 22	420
41		+ 3 0 09	+ 0 0078		- 18 741	+ 0 169		
42	R Piscium Var 1	+ 3 0902	+ 0 0078		- 18 786	+ 0 160		
43	90 Piscium η	+ 3 1974	+ 0 0142	0 000	- 18 719	+ 0 176	0 00	453
44	102 Piscium π	+ 3 1754	+ 0 0125	- 0 007	- 18 534	+ 0 185	- 0 03	468
45	525 Taylor	+ 2 2448	- 0 0135		- 18 525	+ 0 133		
46	539 Taylor	+ 2 2061	- 0 0129		- 18 471	+ 0 133		497
47	α baldani	+ 2 2320	- 0 0128	+ 0 008	- 18 440	+ 0 137	+ 0 07	507
48	106 Piscium ν	+ 3 1168	+ 0 0091	- 0 004	- 18 382	+ 0 191	+ 0 04	518
49	501 Lacaille	+ 2 0655	- 0 0104		- 18 333	+ 0 130		
50	507 Lacaille	+ 2 0604	- 0 0099		- 18 282	+ 0 132		531
51	110 Piscium α	+ 3 1517	+ 0 0111	+ 0 006	- 18 244	+ 0 200	- 0 01	537
52		+ 2 1155	- 0 0108		- 18 182	+ 0 188		
53		+ 2 0791	- 0 0082		- 17 943	+ 0 144		
54	δ Arctis β	+ 3 2023	+ 0 0133	+ 0 002	- 17 906	+ 0 226	+ 0 11	577
55		+ 3 0121	- 0 0067		- 17 840	+ 0 143		
56	542 Lacaille	+ 2 1538	- 0 0081		- 17 754	+ 0 155		
57		+ 1 9176	- 0 0031		- 17 306	+ 0 146		
58	14 Arctis α	+ 3 3521	+ 0 0203	+ 0 012	- 17 302	+ 0 252	+ 0 15	648
59	520 Lacaille	+ 2 0791	- 0 0059		- 17 374	+ 0 160		
60		+ 1 9137	- 0 0028		- 17 323	+ 0 143		
61	507 Taylor	+ 2 0778	- 0 0059		- 17 292	+ 0 162		659
62	17 Arctis η	+ 3 3120	+ 0 0188	+ 0 009	- 17 160	+ 0 260	- 0 01	682
63	577 Lacaille	+ 1 8611	- 0 0011		- 17 058	+ 0 150		
64		+ 1 9170	- 0 0021		- 17 037	+ 0 151		
65	67 Ceti	+ 2 3829	+ 0 0049	+ 0 003	- 16 907	+ 0 242	+ 0 14	704
66	α Ceti Var 1	+ 3 0231	+ 0 0064	- 0 001	- 16 799	+ 0 248	+ 0 23	720
67		+ 1 8704	- 0 0005		- 16 726	+ 0 159		
68		+ 1 8347	+ 0 0055		- 16 644	+ 0 140		
69	518 Taylor	+ 1 8779	- 0 0001		- 16 478	+ 0 169		753
70	73 Ceti δ	+ 3 1732	+ 0 0117	+ 0 001	- 16 335	+ 0 276	+ 0 02	760

47 Proper Motions adopted from "Strom's Catalogue"

67 70 Proper Motions adopted from "Greenwich Catalogues"

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
71	λ Horologii	6.5	2	2	21	4.15	150	55	35.8	2	0.92
72	26 R. P. L.	8.0		2	22	11.82	3	33	12.5	2	0.89
73		9.4	2	2	24	13.66	152	35	56.0	2	0.91
74		8.8	2	2	27	23.68	147	12	28.9	2	0.82
75	31 Arctus	5.5		2	29	9.86	78	8	55.0	1	0.89
76	849 Lacaille 1st	7.8	1	2	35	59.20	150	9	25.0	1	0.86
77	849 Lacaille 2nd	8.0	2	2	36	3.86	150	9	32.2	2	0.95
78	86 Ceti γ	3.3		2	36	12.22	87	20	38.7	6	0.91
79	38 Arctus	5.4		2	37	29.97	78	7	55.9	1	0.89
80	868 Lacaille	8.3	2	2	38	31.18	147	13	27.0	2	0.82
81		8.7	1	2	43	16.32	148	0	51.6	1	0.95
82		8.8	2	2	44	27.50	148	14	5.5	2	0.82
83		9.0	1	2	45	12.36	76	28	9.1	1	0.90
84	48 Arctus ϵ	4.3		2	51	22.99	69	12	37.9	2	0.82
85		8.5	1	2	52	20.72	150	17	22.3	1	0.93
86	92 Ceti α (Menkar)	2.3		2	55	7.17	86	27	0.4	8	0.93
87	25 Persei ρ Var 2	4.0		2	56	24.33	51	41	38.0	1	0.94
88	26 Persei β Var 1	2.7		2	59	15.82	49	34	55.4	1	0.96
89	1047 Taylor	6.0	1	2	59	50.11	151	20	4.8	1	0.85
90	33 R. P. L.	5.8		3	0	29.83	5	35	3.8	2	0.02
91	57 Arctus δ	4.3		3	3	47.97	70	47	39.7	5	0.84
92		8.7	3	3	12	38.95	180	50	31.5	3	0.60
93	61 Arctus τ^1	5.5		3	13	19.33	69	20	59.4	2	0.89
94		9.2	1	3	14	49.98	150	6	32.6	1	0.82
95	1 Tauri σ	4.7		3	17	26.50	81	27	20.8	1	0.95
96		9.0	1	3	20	16.88	149	19	7.8	1	0.82
97	R. Persei Var 3	10.0	2	3	21	20.23	54	48	15.4	2	0.97
98		7.5	1	3	21	56.75	88	12	37.5	1	0.88
99		9.2	2	3	25	51.95	87	53	30.3	2	0.89
100	1193 Lacaille	8.3	1	3	35	14.00	146	35	24.7	1	0.93
101	1200 Lacaille	6.7	1	3	36	23.16	146	40	44.3	1	0.87
102		9.0	1	3	38	3.95	136	13	2.8	1	0.90
103	25 Tauri η (Aleyone)	3.0		3	39	20.66	66	19	18.3	10	0.56
104		8.8	2	3	45	3.39	76	27	56.3	3	0.66
105	34 Eridani γ^1	8.0		3	51	38.25	103	54	2.6	8	0.59

72—352 Carrington

87— ρ Persei Var 2—Irrregular—changes from 3.5 to 4.3 magnitude

88—Algol.—Period 2.867 days—Range 2.5 to 4th magnitude

90—595 Groombridge

97—R. Persei Var 3—Period 209 days—Range 8.5 to 12.5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
71	λ Horologu	+ 1 6834	+ 0 0044		- 16 374	+ 0 149		762
72	26 R P L	+ 15 5894	+ 3 5830		- 16 317	+ 1 329		
73		+ 1 5589	+ 0 0073		- 16 214	+ 0 141		
74		+ 1 8275	+ 0 0016		- 16 048	+ 0 167		
75	31 Arctis	+ 3 2420	+ 0 0137	+ 0 017	- 15 955	+ 0 294	+ 0 09	798
76	849 Lacaille 1st	+ 1 6056	+ 0 0071		- 15 586	+ 0 154		
77	849 Lacaille 2nd	+ 1 6049	+ 0 0071		- 15 582	+ 0 154		
78	86 Ceti γ	+ 3 1111	+ 0 0094	- 0 011	- 15 575	+ 0 294	+ 0 19	887
79	38 Arctus	+ 3 2508	+ 0 0137	+ 0 008	- 15 503	+ 0 308	+ 0 10	844
80	868 Lacaille	+ 1 7476	+ 0 0040		- 15 448	+ 0 170		
81		+ 1 6726	+ 0 0057		- 15 178	+ 0 167		
82		+ 1 6522	+ 0 0062		- 15 110	+ 0 165		
83		+ 3 2844	+ 0 0144		- 15 066	+ 0 322		
84	48 Arctus ϵ	+ 3 4172	+ 0 0185	- 0 001	- 14 704	+ 0 343	+ 0 02	921
85		+ 1 4718	+ 0 0026		- 14 647	+ 0 153		
86	92 Ceti α	+ 3 1293	+ 0 0098	- 0 002	- 14 480	+ 0 323	+ 0 11	949
87	ρ Persi Var 2	+ 3 3070	+ 0 0332	+ 0 010	- 14 402	+ 0 393	+ 0 11	953
88	β Persi Var 1	+ 3 3746	+ 0 0356	- 0 002	- 14 226	+ 0 405	- 0 01	963
89	1047 Taylor	+ 1 3440	+ 0 0139		- 14 191	+ 0 145		968
90	33 R P L	+ 12 7618	+ 1 5797		- 14 150	+ 1 325	+ 0 08	960
91	57 Arctis δ	+ 3 4067	+ 0 0171	+ 0 010	- 13 945	+ 0 364	0 00	986
92		+ 2 2110	+ 0 0012		- 13 877	+ 0 246		
93	61 Arctis τ^1	+ 3 4435	+ 0 0175	- 0 001	- 13 833	+ 0 382	+ 0 03	1034
94		+ 1 3243	+ 0 0138		- 13 235	+ 0 151		
95	1 Tauri \circ	+ 3 2245	+ 0 0115		- 13 062	+ 0 363		1057
96		+ 1 3441	+ 0 0131		- 12 872	+ 0 156		
97	R Persi Var 3	+ 3 7980	+ 0 0273		- 12 801	+ 0 432		
98		+ 3 1042	+ 0 0089		- 12 761	+ 0 355		
99		+ 3 1105	+ 0 0089		- 12 494	+ 0 360		
100	1193 Lacaille	+ 1 4363	+ 0 0105		- 11 842	+ 0 174		
101	1200 Lacaille	+ 1 4247	+ 0 0107		- 11 761	+ 0 173		
102		+ 1 3360	+ 0 0044		- 11 641	+ 0 223		
103	25 Tauri η	+ 3 5513	+ 0 0177	- 0 001	- 11 551	+ 0 480	+ 0 06	1136
104		+ 3 3398	+ 0 0124		- 11 132	+ 0 410		
105	34 Eridani γ^1	+ 2 7916	+ 0 0047	+ 0 002	- 10 655	- 0 350	+ 0 12	1234

75—87—Proper Motions adopted from "Greenwich Catalogues"

90—Proper Motion in Polar Distance from "Radcliffe Polar List for 1855"

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
106		10.0	1	3	53	296	128	25	35.7	1	0.90
107	35 Tauri λ Var 1	4.5		3	53	5.59	77	53	51.8	2	0.02
108		8.1	1	3	53	38.68	143	8	33.2	1	0.95
109	37 Tauri A^1	4.7		3	56	35.88	68	17	46.2	3	0.87
110	7581 Lalande	9.0	1	3	58	10.39	74	52	31.1	2	0.10
111		10.2	2	4	3	20.50	68	30	27.8	2	0.49
112	7764 Lalande	8.4	2	4	3	24.92	74	44	1.5	2	0.10
113		9.2	1	4	3	41.01	146	56	38.5	1	0.90
114	38 Eridani ϵ^1	4.4		4	5	10.72	97	11	51.6	2	0.50
115	1418 Lacaille	8.1	2	4	12	25.54	143	39	54.7	2	0.43
116		8.9	2	4	13	44.15	70	51	40.4	2	0.92
117		9.5	2	4	15	37.69	128	39	58.4	2	0.09
118		8.7	1	4	16	44.94	149	4	34.4	1	0.93
119	74 Tauri ϵ	8.7		4	20	37.18	71	7	36.8	11	0.34
120		10.2	1	4	21	53.85	80	28	12.0	1	0.98
121	1520 Lacaille	8.7	1	4	26	39.85	147	29	8.1	1	0.95
122	37 Tauri α (Aldebaran)	1.0		4	28	3.73	78	46	10.8	11	0.35
123		9.0	2	4	28	26.08	140	14	23.9	2	0.07
124		9.4	2	4	31	41.27	142	59	42.6	2	0.51
125		9.5	1	4	32	54.96	180	48	21.1	2	0.09
126	1566 Lacaille	8.0	1	4	35	44.77	148	28	31.1	1	0.95
127		9.5	2	4	36	15.84	64	19	23.1	2	0.90
128	1663 Taylor	8.0	1	4	36	43.54	138	43	16.4	1	0.05
129		9.5	1	4	39	23.24	128	57	40.0	2	0.08
130	1598 Lacaille	7.5	2	4	41	35.30	128	21	44.8	2	0.54
131		9.6	2	4	43	18.72	130	41	20.0	2	0.51
132	97 Tauri ϵ	5.5		4	43	21.68	71	23	49.7	2	0.97
133	1625 Lacaille	8.3	2	4	44	57.42	140	1	54.0	2	0.05
134		8.9	2	4	45	26.91	129	25	9.0	2	0.09
135	3 Aurigæ ϵ	3.0		4	48	4.45	57	3	16.9	3	0.66
136	1761 Taylor	7.5	1	4	49	57.63	129	18	43.8	1	0.06
137	7 Aurigæ ϵ Var 1	3.5		4	52	8.56	46	23	0.7	2	0.09
138	1780 Taylor	9.0	1	4	52	13.45	144	38	52.0	1	0.05
139		9.0	1	4	52	17.06	129	39	57.2	1	0.06
140	R Leporis Var 1	6.3	2	4	53	22.12	105	0	54.4	5	0.02

107 — λ Tauri Var 1 — Period 3.95 days — Range 3.5 to 4.3 magnitude

110 and 112 — Comparison stars for Asia in 1862

137 — ϵ Aurigæ Var 1 — Supposed to be irregularly variable

140 — R Leporis Var 1 — Period 438 days — Range 6th to 9th magnitude

[53 688]

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Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
106		+ 2 1699	+ 0 0080		- 10 550	+ 0 274		
107	85 Tauri λ Var 1	+ 3 3159	+ 0 0115		- 10 546	+ 0 416		1241
108		+ 1 5528	+ 0 0082		- 10 505	+ 0 208		
109	87 Tauri A ¹	+ 3 5290	+ 0 0153	+ 0 004	- 10 284	+ 0 446	+ 0 09	1257
110	7581 Lalande	+ 3 3836	+ 0 0124		- 10 166	+ 0 430		
111		+ 3 5318	+ 0 0147		- 9 773	+ 0 454		
112	7764 Lalande	+ 3 3908	+ 0 0121		- 9 767	+ 0 436		
113		+ 1 2766	+ 0 0290		- 9 747	+ 0 167		
114	88 Eridani α ¹	+ 2 9239	+ 0 0058	- 0 002	- 9 632	+ 0 379	- 0 07	1290
115	1418 Lacaille	+ 1 4509	+ 0 0088		- 9 072	+ 0 196		
116		+ 3 4870	+ 0 0128		- 8 969	+ 0 459		
117		+ 2 1111	+ 0 0085		- 8 821	+ 0 281		
118		+ 1 0628	+ 0 0146		- 8 738	+ 0 144		
119	74 Tauri ϵ	+ 3 4868	+ 0 0120	+ 0 005	- 8 427	+ 0 468	+ 0 03	1376
120		+ 3 2762	+ 0 0090		- 8 319	+ 0 439		
121	1520 Lacaille	+ 1 1462	+ 0 0122		- 7 944	+ 0 157		
122	87 Tauri α	+ 3 4803	+ 0 0097	+ 0 004	- 7 831	+ 0 464	+ 0 17	1420
123		+ 1 5915	+ 0 0120		- 7 801	+ 0 217		
124		+ 1 4288	+ 0 0082		- 7 538	+ 0 196		
125		+ 2 0000	+ 0 0040		- 7 438	+ 0 274		
126	1566 Lacaille	+ 1 0380	+ 0 0123		- 7 208	+ 0 144		
127		+ 3 6724	+ 0 0130		- 7 166	+ 0 508		
128	1663 Taylor	+ 1 6440	+ 0 0059		- 7 121	+ 0 227		
129		+ 2 0571	+ 0 0037		- 6 902	+ 0 285		
130	1598 Lacaille	+ 2 0753	+ 0 0036		- 6 728	+ 0 288		
131		+ 1 9862	+ 0 0048		- 6 586	+ 0 277		
132	97 Tauri ϵ	+ 3 4972	+ 0 0100	+ 0 003	- 6 582	+ 0 485	+ 0 07	1498
133	1625 Lacaille	+ 1 5616	+ 0 0068		- 6 451	+ 0 219		
134		+ 2 0307	+ 0 0037		- 6 410	+ 0 284		
135	8 Aurigæ ϵ	+ 3 8961	+ 0 0144	- 0 003	- 6 191	+ 0 544	+ 0 02	1520
136	1761 Taylor	+ 2 0280	+ 0 0032		- 6 045	+ 0 282		
137	7 Aurigæ ϵ Var 1	+ 4 2906	+ 0 0199	0 000	- 5 852	+ 0 60	0 00	1540
138	1730 Taylor	+ 1 2691	+ 0 0084		- 5 842	+ 0 180		
139		+ 2 0115	+ 0 0088		- 5 840	+ 0 284		
140	R Leporis Var 1	+ 2 7285	+ 0 0038		- 5 749	+ 0 382		

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
141	102 Tauri ϵ	4.9		4	54	54.06	68	36	35.9	1	0.97
142		9.1	3	4	55	54.53	130	17	46.1	3	0.10
143	1811 Taylor	6.5	1	4	57	1.08	129	55	8.7	1	0.06
144	1705 Lacaille	8.1	2	4	57	23.58	129	16	37.6	2	0.53
145	2 Leporis ϵ	3.7		4	59	39.73	112	33	27.0	6	0.07
146	15 Orionis	6.0		5	1	51.48	74	34	52.9	2	0.90
147		9.0	2	5	6	0.27	131	45	47.3	2	0.09
148	13 Aurigæ α (Capella)	1.0		5	6	34.36	44	8	28.4	1	0.12
149		8.3	2	5	6	50.01	129	6	7.9	2	0.09
150	19 Orionis β (Rigel)	1.0		5	7	57.22	98	21	47.2	4	0.28
151		9.4	2	5	12	49.82	129	40	10.0	2	0.09
152	1822 Lacaille	7.9	2	5	15	41.40	141	43	17.0	2	0.09
153	112 Tauri β	2.0		5	17	37.93	61	30	44.2	7	0.07
154		8.7	3	5	18	40.94	129	58	4.4	3	0.37
155		9.5	1	5	19	43.42	131	3	57.6	1	0.06
156	34 Orionis δ Var 1	2.0		5	25	0.51	90	24	14.0	7	0.20
157	11 Leporis α	3.0		5	26	41.36	107	55	22.3	5	0.08
158	46 Orionis ϵ	2.0		5	29	15.75	91	17	33.5	3	0.07
159	123 Tauri 3	3.5		5	29	27.46	68	56	41.2	1	0.08
160		9.2	2	5	31	35.74	128	42	17.6	3	0.37
161		9.2	2	5	32	39.85	128	41	17.9	2	0.53
162	α Columbae	2.0		5	34	41.37	124	8	56.9	5	0.08
163	2113 Taylor	8.5	1	5	35	6.11	130	45	36.7	1	0.06
164		9.2	1	5	36	41.64	129	57	52.4	1	0.13
165		9.0	1	5	38	21.66	130	5	27.8	2	0.09
166	1984 Lacaille	7.8	2	5	40	39.87	130	15	20.9	2	0.08
167	54 Orionis χ^1	5.0		5	46	16.18	69	45	11.9	2	0.57
168	2036 Lacaille	8.1	2	5	46	18.77	129	47	15.5	2	0.53
169	58 Orionis α Var 2	1.0		5	47	45.30	82	37	13.5	12	0.22
170		9.4	1	5	49	34.77	130	1	20.8	1	0.12
171		9.0	1	5	52	39.45	129	32	35.1	1	0.12
172		8.0	1	5	53	14.79	131	7	15.1	2	0.08
173	2104 Lacaille	8.1	2	5	54	20.14	143	26	24.3	2	0.09
174	62 Orionis χ	5.0		5	55	47.02	69	51	45.1	1	0.93
175		9.3	2	5	56	7.47	129	57	12.8	2	0.09

[54.43]

— 4.47.0

156 — 3 Orionis Var 1 — Supposed to vary irregularly from 2.3 to 2.7 magnitude
 169 — 2 Orionis Var 2 — (Betelgeuse) — Irregularly variable from 1.0 to 1.5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
141	102 Tauri	+ 3 5748	+ 0 0095	+ 0 004	- 5 620	+ 0 503	+ 0 06	1551
142		+ 1 9824	+ 0 0038		- 5 535	+ 0 280		
143	1811 Taylor	+ 1 9954	+ 0 0038		- 5 442	+ 0 282		1561
144	1705 Lacaille	+ 2 0191	+ 0 0037		- 5 411	+ 0 286		
145	2 Leporis	+ 2 5357	+ 0 0033	+ 0 001	- 5 219	+ 0 359	+ 0 08	1575
146	15 Orionis	+ 3 4290	+ 0 0074	- 0 001	- 5 083	+ 0 486	- 0 03	1591
147		+ 1 9110	+ 0 0106		- 4 681	+ 0 273		
148	18 Aurigæ α	+ 4 4121	+ 0 0173	+ 0 008	- 4 633	+ 0 628	+ 0 43	1613
149		+ 2 0145	+ 0 0035		- 4 611	+ 0 288		
150	19 Orionis β	+ 2 8804	+ 0 0040	- 0 001	- 4 515	+ 0 412	+ 0 02	1623
151		+ 1 9866	+ 0 0035		- 4 099	+ 0 286		
152	1822 Lacaille	+ 1 4093	+ 0 0057		- 3 853	+ 0 204		
153	112 Tauri β	+ 3 7852	+ 0 0082	+ 0 003	- 3 686	+ 0 545	+ 0 20	1681
154		+ 1 9696	+ 0 0034		- 3 596	+ 0 285		
155		+ 1 9251	+ 0 0035		- 3 506	+ 0 279		
156	34 Orionis δ Var 1	+ 3 0623	+ 0 0038	+ 0 001	- 3 050	+ 0 443	+ 0 04	1730
157	11 Leporis α	+ 2 0441	+ 0 0029	+ 0 001	- 2 905	+ 0 383	0 00	1741
158	46 Orionis ϵ	+ 3 0421	+ 0 0035	- 0 002	- 2 682	+ 0 441	+ 0 01	1765
159	123 Tauri 3	+ 3 5822	+ 0 0055	0 000	- 2 665	+ 0 519	+ 0 05	1767
160		+ 2 0039	+ 0 0031		- 2 460	+ 0 292		
161		+ 2 0089	+ 0 0030		- 2 387	+ 0 292		
162	α Columbæ	+ 2 1708	+ 0 0027	+ 0 005	- 2 211	+ 0 316	+ 0 05	1802
163	2113 Taylor	+ 1 9264	+ 0 0031		- 2 174	+ 0 290		
164		+ 1 9573	+ 0 0030		- 2 036	+ 0 285		
165		+ 1 9515	+ 0 0030		- 1 891	+ 0 284		
166	1984 Lacaille	+ 1 9110	+ 0 0030		- 1 090	+ 0 284		
167	54 Orionis χ^1	+ 3 5041	+ 0 0034		- 1 201	+ 0 520		1876
168	2086 Lacaille	+ 1 9605	+ 0 0028		- 1 198	+ 0 286		
169	58 Orionis α Var 2	+ 3 2449	+ 0 0028	+ 0 001	- 1 070	+ 0 467	0 00	1883
170		+ 1 9504	+ 0 0027		- 0 912	+ 0 284		
171		+ 1 9687	+ 0 0026		- 0 643	+ 0 297		
172		+ 1 9053	+ 0 0026		- 0 590	+ 0 278		
173	2104 Lacaille	+ 1 2632	+ 0 0073		- 0 496	+ 0 199		
174	62 Orionis χ^*	+ 3 5623	+ 0 0022		- 0 369	+ 0 519		1989
175		+ 1 9521	+ 0 0025		- 0 340	+ 0 285		

145 — Proper Motions adopted from 'Greenwich Catalogue'

162 — Proper Motions adopted from 'Stone's Catalogue'

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>	<i>°</i>				
176	2801 Taylor	6.3	1	5	58	28.90	148	6	20.5	1	0.06
177		8.2	1	5	59	38.92	129	49	47.9	2	0.51
178	67 Orionis ν	5.0		5	59	44.99	75	18	7.5	12	0.09
179		8.8	2	6	8	37.81	129	58	11.0	2	0.14
180		7.4	2	6	4	20.20	128	2	33.6	2	0.12
181	7 Geminorum η Var 6	3.5		6	6	36.42	67	27	26.8	3	0.63
182		9.0	1	6	8	47.72	131	54	43.0	2	0.08
183	*	9.0		6	8	51.84	130	81	34.1	1	0.18
184	13 Geminorum μ	3.0		6	14	40.38	67	25	11.7	7	0.22
185		9.4	2	6	21	54.56	129	36	27.5	2	0.14
186	2524 Taylor	7.5	1	6	23	23.01	131	3	1.3	1	0.08
187	24 Geminorum γ	2.3		6	29	47.81	78	29	14.0	12	0.14
188		9.0	2	6	31	24.39	140	0	9.8	2	0.06
189		9.0	2	6	33	51.92	130	54	14.8	2	0.09
190		7.7	1	6	34	28.58	130	27	51.0	1	0.15
191	51 Cephei (Hev)	5.3		6	35	8.54	2	45	16.3	8	0.10
192		8.9	2	6	36	11.08	130	20	57.4	2	0.12
193	31 Geminorum δ	3.7		6	37	35.89	76	57	36.2	2	0.16
194	9 Can. Maj. α (Sirius)	1.0		6	39	6.56	106	31	51.7	1	0.01
195		8.9	2	6	42	21.47	130	56	52.0	2	0.15
196		8.8	2	6	43	38.68	128	30	19.6	2	0.07
197	2724 Taylor	8.9	2	6	44	52.12	144	35	58.6	2	0.08
198	2500 Lacaille	7.8	1	6	46	57.71	130	23	14.8	1	0.16
199	2516 Lacaille	8.2	1	6	48	21.53	130	31	34.6	2	0.14
200		9.3	1	6	49	40.68	129	8	13.8	1	0.15
201	21 Canis Majoris ϵ	1.7		6	53	14.58	118	47	16.6	6	0.09
202		9.0	1	6	53	45.82	129	47	27.6	1	0.16
203	2805 Taylor	7.6	1	6	55	58.22	69	12	25.2	1	0.12
204	43 Gem 3 ^a Var 1	4.0		6	55	58.86	69	13	56.7	4	0.31
205	23 Canis Majoris γ	4.5		6	57	33.68	105	26	0.6	7	0.14
206	R Geminorum Var 2	7.7	3	6	59	6.33	67	5	20.3	3	0.08
207		9.0	1	6	59	8.11	66	59	50.1	1	0.04
208		7.8	1	6	59	47.20	129	42	59.4	1	0.16
209	2851 Taylor	7.8	1	7	0	48.71	145	44	43.8	1	0.19
210	R Canis Minoris Var 1	8.4	3	7	1	10.40	79	45	46.5	3	0.11

181 — η Geminorum Var 6 — Period 229 days — Range 3rd to 4th magnitude
 204 — 3 Geminorum Var 1 — Period 10.16 days — Range 3.7 to 4.5 magnitude
 206 — R Geminorum Var 2 — Period 371 days — Range 7th magnitude to invisibility
 210 — R Canis Minoris Var 1 — Period 335 days — Range 7.5 to 11th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
176	2301 Taylor	+ 0 9235	+ 0 0030		- 0 132	+ 0 135		1954
177		+ 1 9568	+ 0 0024		- 0 081	+ 0 285		
178	87 Orionis ν	+ 3 4248	+ 0 0017	+ 0 001	- 0 022	+ 0 500	+ 0 02	1958
179		+ 1 9515	+ 0 0023		+ 0 317	+ 0 285		
180		+ 2 0261	+ 0 0023		+ 0 379	+ 0 296		
181	7 Gem η Var 6	+ 3 6267	+ 0 0007	- 0 007	+ 0 578	+ 0 529	+ 0 02	2002
182		+ 1 8728	+ 0 0021		+ 0 769	+ 0 273		
183		+ 1 9300	+ 0 0021		+ 0 774	+ 0 281		
184	13 Geminorum μ	+ 3 6268	- 0 0003	+ 0 005	+ 1 283	+ 0 527	+ 0 14	2047
185		+ 1 9707	+ 0 0018		+ 1 914	+ 0 285		
186	2524 Taylor	+ 1 9138	+ 0 0018		+ 2 047	+ 0 277		
187	24 Geminorum γ	+ 3 4650	- 0 0015	+ 0 001	+ 2 600	+ 0 500	+ 0 04	2163
188		+ 1 4935	+ 0 0007		+ 2 740	+ 0 215		
189		+ 1 9264	+ 0 0015		+ 2 953	+ 0 277		
190		+ 1 9445	+ 0 0015		+ 3 006	+ 0 278		
191	51 Cophes (Hev)	+ 30 5365	- 1 8025	- 0 027	+ 3 063	+ 4 400	+ 0 08	2157
192		+ 1 9503	+ 0 0014		+ 3 154	+ 0 280		
193	31 Geminorum ξ	+ 3 3776	- 0 0016	- 0 007	+ 3 275	+ 0 485	+ 0 22	2206
194	9 Can Maj α	+ 2 6808	+ 0 0010	- 0 035	+ 3 405	+ 0 384	+ 1 24	2213
195		+ 1 9317	+ 0 0013		+ 3 686	+ 0 275		
196		+ 2 0276	+ 0 0013		+ 3 796	+ 0 288		
197	2724 Taylor	+ 1 2237	- 0 0014		+ 3 901	+ 0 173		
198	2500 Lacaille	+ 1 9585	+ 0 0012		+ 4 081	+ 0 278		
199	2516 Lacaille	+ 1 9545	+ 0 0012		+ 4 201	+ 0 277		
200		+ 2 0095	+ 0 0013		+ 4 313	+ 0 284		
201	21 Can Maj ϵ	+ 2 3570	+ 0 0013	0 000	+ 4 617	+ 0 332	+ 0 02	2293
202		+ 1 9890	+ 0 0012		+ 4 662	+ 0 250		
203	2805 Taylor	+ 3 5647	- 0 0050		+ 4 849	+ 0 502		
204	43 Gem 3 ^a Var 1	+ 3 5641	- 0 0050	- 0 001	+ 4 850	+ 0 503	+ 0 01	2305
205	23 Can Maj γ	+ 2 7144	+ 0 0005	+ 0 002	+ 4 984	+ 0 381	+ 0 01	2319
206	R Gem Var 2	+ 3 6184	- 0 0059		+ 5 115	+ 0 508		
207		+ 3 6209	- 0 0059		+ 5 118	+ 0 509		
208		+ 1 9990	+ 0 0011		+ 5 173	+ 0 280		
209	2851 Taylor	+ 1 1774	- 0 0033		+ 5 259	+ 0 164		
210	R Can Min Var 1	+ 3 3050	- 0 0031		+ 5 290	+ 0 463		

178 — 191 — 198 — Proper Motions adopted from "Greenwich Catalogue"

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
211		9 0	1	7	4	55 62	130	42	26 1	1	0 20
212	2899 Taylor	8 3	1	7	5	45 64	130	8	42 2	1	0 10
213		9 0	1	7	5	49 92	129	23	7 9	1	0 16
214		7 9	1	7	6	36 63	129	2	39 0	1	0 15
215	2696 Lacaille	8 4	2	7	9	20 62	140	58	45 6	2	0 09
216	2940 Taylor	8 5	1	7	9	26 25	129	57	35 9	1	0 06
217	54 Geminorum λ	4 3		7	10	13 09	73	12	57 4	1	0 90
218		9 5	1	7	10	14 44	131	52	5 3	1	0 20
219	55 Geminorum δ	3 3		7	11	56 31	67	46	8 7	17	0 14
220		9 5	1	7	12	59 12	129	15	51 3	1	0 16
221		8 0	1	7	14	28 97	138	49	29 4	1	0 20
222		8 7	2	7	17	22 77	129	13	19 5	2	0 09
223		9 7	2	7	18	1 38	129	42	28 0	2	0 15
224	3043 Taylor	7 1	2	7	19	11 34	129	16	18 9	2	0 15
225	2807 Lacaille	8 0	1	7	19	31 07	142	15	14 6	2	0 09
226		9 0	1	7	19	33 48	123	7	52 1	1	0 21
227		7 0	1	7	21	32 00	131	50	19 2	1	0 20
228	S Canis Minoris Var 2	9 8	3	7	25	16 94	81	23	34 4	3	0 14
229	68 Geminorum	6 5	1	7	25	47 23	73	52	54 7	2	0 11
230	66 Gem α^2 (Castor)	1 7		7	25	51 25	57	48	53 8	12	0 15
231		9 0	1	7	26	27 73	142	5	45 3	1	0 05
232		9 2	1	7	26	46 17	123	7	15 0	1	0 21
233	3126 Taylor	7 5	1	7	29	32 74	143	15	35 0	1	0 06
234	10 Can Min α (Procyon)	1 0		7	32	7 72	84	25	37 3	15	0 16
235	2893 Lacaille	8 0	1	7	32	41 06	121	49	18 1	1	0 04
236	2910 Lacaille	8 5	1	7	33	16 04	143	52	47 6	1	0 05
237		8 5	1	7	35	27 60	141	19	34 5	1	0 05
238	78 Gem β (Pollux)	1 3		7	36	55 73	61	38	47 2	10	0 15
239		7 5	2	7	37	44 51	128	52	45 3	2	0 06
240	81 Geminorum γ	5 0		7	38	11 35	71	9	33 0	2	0 12
241	2971 Lacaille	7 5	1	7	40	16 99	143	54	47 6	1	0 05
242	T Geminorum Var 4	8 3	2	7	41	4 50	65	55	40 7	2	0 09
243		8 0	1	7	41	30 83	144	18	31 9	1	0 05
244	3013 Lacaille	7 0	1	7	43	27 42	142	0	32 0	1	0 06
245	49 R P L	6 5		7	43	39 66	5	33	32 7	1	0 09

228 — S Canis Minoris Var 2 — Period 332 days — Range 7 5 magnitude to invisibility
 242 — T Geminorum Var 4 — Period ~~222~~ days — Range 8 5 magnitude to invisibility
 245 — 1359 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
211		+ 1 9676	+ 0 0009		+ 5 606	+ 0 274		
212	2899 Taylor	+ 1 9905	+ 0 0009		+ 5 676	+ 0 277		
213		+ 2 0193	+ 0 0010		+ 5 682	+ 0 280		
214		+ 2 0332	+ 0 0010		+ 5 748	+ 0 282		
215	2696 Lacaille	+ 1 4971	- 0 0013		+ 5 976	+ 0 205		
216	2940 Taylor	+ 2 0028	+ 0 0010		+ 5 984	+ 0 276		
217	54 Geminorum λ	+ 3 4566	- 0 0055		+ 6 049	+ 0 002		2398
218		+ 1 9296	+ 0 0007		+ 6 060	+ 0 265		
219	55 Geminorum δ	+ 3 5918	- 0 0072	0 000	+ 6 193	+ 0 495	+ 0 02	2410
220		+ 2 0341	+ 0 0009		+ 6 280	+ 0 279		
221		+ 1 6234	- 0 0008		+ 6 403	+ 0 221		
222		+ 2 0424	+ 0 0009		+ 6 644	+ 0 278		
223		+ 2 0255	+ 0 0010		+ 6 697	+ 0 276		
224	3043 Taylor	+ 2 0435	+ 0 0009		+ 6 792	+ 0 277		
225	2807 Lacaille	+ 1 1480	- 0 0023		+ 6 819	+ 0 196		
226		+ 2 2515	+ 0 0013		+ 6 823	+ 0 304		
227		+ 1 9500	+ 0 0006		+ 6 985	+ 0 264		
228	8 Can Min Var 2	+ 3 2606	- 0 0044		+ 7 293	+ 0 440		
229	63 Geminorum	+ 3 4817	- 0 0066	- 0 004	+ 7 333	+ 0 463	0 00	2485
230	66 Geminorum α^2	+ 3 8551	- 0 0133	- 0 013	+ 7 339	+ 0 519	+ 0 08	2485
231		+ 1 4744	- 0 0024		+ 7 354	+ 0 197		
232		+ 2 2616	+ 0 0011		+ 7 413	+ 0 308		
233	3126 Taylor	+ 1 4160	- 0 0032		+ 7 633	+ 0 188		2507
234	10 Can Min α	+ 3 1920	- 0 0041	- 0 043	+ 7 846	+ 0 423	+ 1 08	2522
235	2893 Lacaille	+ 2 3094	+ 0 0012		+ 7 891	+ 0 307		
236	2910 Lacaille	+ 1 3896	- 0 0037		+ 7 933	+ 0 183		
237		+ 1 3643	- 0 0041		+ 8 114	+ 0 179		
238	78 Geminorum β	+ 3 7299	- 0 0128	- 0 049	+ 8 231	+ 0 491	+ 0 06	2555
239		+ 2 0906	+ 0 0010		+ 8 297	+ 0 274		
240	81 Geminorum g	+ 3 4371	- 0 0086	- 0 008	+ 8 332	+ 0 459	+ 0 05	2558
241	2971 Lacaille	+ 1 4105	- 0 0038		+ 8 499	+ 0 182		
242	T Gem Var 4	+ 3 6122	- 0 0110		+ 8 561	+ 0 472		
243		+ 1 3904	- 0 0041		+ 8 596	+ 0 179		
244	3013 Lacaille	+ 1 5317	- 0 0026		+ 8 749	+ 0 197		
245	49 R P L	+ 15 4282	- 1 2094		+ 8 765	+ 2 020		2555

+ 4 472

Mean Positions of Stars for 1863 January 1st,

[29 16]

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Solar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
246		8.0	1	7	45	4.57	129	21	42.4	2	0.09
247	1791 Brisbane	8.0	1	7	46	17.14	144	24	30.2	1	0.05
248	3293 Taylor	8.0	1	7	46	29.76	144	43	55.7	1	0.05
249		9.1	1	7	48	56.74	130	25	52.8	1	0.15
250	1 Cancer	6.0		7	49	12.66	73	50	48.4	1	0.09
251		8.5	2	7	49	49.19	129	17	12.9	2	0.06
252		9.0		7	50	2.96	129	38	16.1	1	0.13
253	3339 Taylor	8.0	1	7	51	48.84	144	16	45.2	1	0.05
254		9.0	1	7	52	52.87	144	41	30.7	1	0.05
255	6 Cancer	6.0	1	7	55	5.99	61	49	30.0	9	0.16
256	3373 Taylor	8.0	1	7	55	12.34	144	11	41.1	1	0.06
257		8.0	1	7	55	17.98	128	30	1.7	2	0.08
258		9.5	1	7	56	29.84	129	21	9.1	1	0.06
259	15 Argus ρ	3.0		8	1	42.66	113	51	41.6	6	0.15
260		9.7	1	8	1	59.94	113	46	37.3	1	0.20
261		9.2	2	8	2	9.72	123	39	16.3	2	0.10
262	16 Cancer 3	5.5		8	4	20.91	71	56	29.8	1	0.01
263		8.3	1	8	5	17.17	130	45	12.2	1	0.13
264	R Cancer Var 1	7.7	3	8	9	0.61	77	51	21.7	3	0.09
265		9.3	2	8	9	20.90	74	15	51.8	2	0.24
266		9.3	1	8	9	51.95	74	16	2.7	1	0.21
267	16224 Ialande	7.0	1	8	10	30.18	73	54	0.8	1	0.21
268		8.3	1	8	12	15.14	128	43	30.2	1	0.12
269		8.8	1	8	12	43.23	128	40	43.7	1	0.11
270		9.3	1	8	12	53.61	131	17	0.3	1	0.13
271		9.5	1	8	12	55.26	130	45	19.7	1	0.13
272		9.5	1	8	13	40.21	133	17	7.4	1	0.20
273	20 Cancer δ	6.3		8	15	30.83	71	13	50.9	1	0.01
274		9.0	1	8	17	21.94	141	15	41.3	1	0.04
275	3620 Taylor	8.0	1	8	23	8.67	130	47	35.5	1	0.13
276		8.8	2	8	23	30.08	128	38	23.8	2	0.11
277	31 Cancer θ	5.3		8	23	47.14	71	26	44.0	1	0.17
278	33 Cancer η	5.7		8	24	46.94	69	5	46.4	8	0.17
279	3651 Taylor	7.7	1	8	25	37.47	180	3	8.0	1	0.13
280		9.0	1	8	26	23.33	130	30	18.1	1	0.08

248 — R Cancer Var 1 — Period 354 days — Range 6th to 12th magnitude
 265—266—267 — Comparison stars for Aradne

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
246		+ 2 0368	+ 0 0010		+ 8 876	+ 0 269		
247	1791 Brisbane	+ 1 4012	- 0 0043		+ 8 971	+ 0 179		
248	3293 Taylor	+ 1 3820	- 0 0045		+ 9 987	+ 0 176		
249		+ 2 0598	+ 0 0010		+ 9 178	+ 0 263		
250	1 Cancri	+ 3 4162	- 0 0084		+ 9 199	+ 0 439		2639
251		+ 2 1015	+ 0 0011		+ 9 247	+ 0 263		
252		+ 2 0896	+ 0 0011		+ 9 264	+ 0 266		
253	3339 Taylor	+ 1 4297	- 0 0041		+ 9 401	+ 0 180		
254		+ 1 4097	- 0 0053		+ 9 484	+ 0 177		
255	6 Cancri	+ 3 6997	- 0 0148	- 0 005	+ 9 654	+ 0 463	+ 0 07	2672
256	3373 Taylor	+ 1 4479	- 0 0041		+ 9 662	+ 0 181		
257		+ 2 1404	+ 0 0013		+ 9 669	+ 0 270		
258		+ 2 1143	+ 0 0013		+ 9 761	+ 0 265		
259	15 Argus ρ	+ 2 5608	+ 0 0009	- 0 007	+ 10 157	+ 0 313	- 0 06	2728
260		+ 2 5645	+ 0 0009		+ 10 178	+ 0 313		
261		+ 2 1510	+ 0 0015		+ 10 191	+ 0 266		
262	16 Cancri 3	+ 3 4454	+ 0 0103	+ 0 004	+ 10 355	+ 0 426	+ 0 11	2744
263		+ 2 0877	+ 0 0013		+ 10 426	+ 0 266		
264	R Cancri Var 1	+ 3 3154	- 0 0081		+ 10 703	+ 0 406		
265		+ 3 3904	- 0 0095		+ 10 723	+ 0 413		
266		+ 3 3893	- 0 0096		+ 10 766	+ 0 412		
267	16224 Lalande	+ 3 3971	- 0 0097		+ 10 813	+ 0 412		
268		+ 2 1735	+ 0 0018		+ 10 941	+ 0 261		
269		+ 2 1763	+ 0 0018		+ 10 976	+ 0 261		
270		+ 2 0900	+ 0 0015		+ 10 983	+ 0 250		
271		+ 2 1033	+ 0 0011		+ 10 990	+ 0 252		
272		+ 2 0209	+ 0 0013		+ 11 045	+ 0 241		
273	20 Cancri δ^1	+ 3 4493	+ 0 0114		+ 11 179	+ 0 413		2799
274		+ 1 6961	- 0 0014		+ 11 313	+ 0 199		
275	3620 Taylor	+ 2 1360	+ 0 0020		+ 11 723	+ 0 243		
276		+ 2 2059	+ 0 0023		+ 11 752	+ 0 256		
277	31 Cancri θ	+ 3 4354	- 0 0113	- 0 006	+ 11 773	+ 0 401	+ 0 06	2853
278	33 Cancri η	+ 3 4841	- 0 0131	- 0 005	+ 11 844	+ 0 403	+ 0 06	2862
279	3661 Taylor	+ 2 1674	+ 0 0022		+ 11 903	+ 0 249		
280		+ 2 1551	+ 0 0022		+ 11 957	+ 0 247		

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
281		8.4	2	8	30	11.71	128	46	55.5	2	0.12
282	3710 Taylor	8.0	1	8	31	22.50	141	20	51.9	1	0.19
283		8.7	2	8	33	7.27	129	23	15.0	2	0.23
284	S Cancri Var 2	8.5	4	8	36	6.39	70	23	32.6	4	0.13
285	3767 Taylor	8.5	1	8	36	18.59	149	50	2.8	1	0.17
286	47 Cancri δ	4.3		8	36	53.81	71	20	42.0	1	0.09
287		8.9	1	8	73	48.60	136	5	19.7	1	0.18
288	11 Hydræ ϵ	8.5		8	39	31.08	83	4	52.4	12	0.20
289		8.3	1	8	40	27.06	129	15	20.5	1	0.23
290	60 R P L	6.5		8	46	8.72	5	16	42.0	6	0.36
291	S Hydræ Var 3	10.2	3	8	46	25.20	86	24	59.2	3	0.23
292		9.6	1	8	47	18.74	69	36	57.0	1	0.20
293	3886 Taylor	8.0	1	8	43	12.00	136	52	39.3	1	0.18
294	T Cancri Var 3	9.4	3	8	48	50.44	69	37	45.1	3	0.19
295	T Hydræ Var 4	9.7	1	8	48	59.93	98	37	15.5	1	0.04
296		7.5	1	8	49	11.22	132	54	6.3	1	0.20
297	65 Cancri α	4.7		8	50	59.61	77	36	51.7	3	0.12
298		9.7	1	8	51	52.86	137	24	27.1	1	0.20
299		8.8	2	8	54	18.15	130	34	38.1	2	0.19
300		9.0	1	8	54	55.91	142	48	42.8	1	0.27
301	3941 Taylor	8.8	1	8	54	57.63	144	6	8.7	1	0.27
302		9.3	1	8	56	35.64	146	45	47.0	1	0.27
303		9.6	1	8	56	40.93	129	17	57.6	1	0.22
304		9.0	1	8	59	4.56	145	37	55.2	1	0.04
305	76 Cancri κ	5.5		9	0	19.65	78	46	57.7	2	0.09
306		8.0	1	9	1	2.20	150	1	16.2	1	0.27
307		7.7	2	9	1	47.83	128	56	55.1	2	0.20
308		10.5	1	9	2	12.49	71	26	18.8	1	0.23
309		9.3	1	9	4	21.47	130	29	24.9	2	0.15
310	3713 Lacaille	7.8	1	9	4	32.87	143	48	57.5	1	0.23
311		8.4	2	9	6	25.16	142	29	13.1	2	0.08
312		8.9	1	9	6	23.79	138	41	16.6	1	0.17
313		9.0	1	9	8	12.53	148	14	1.3	1	0.17
314		10.3	2	9	9	21.57	73	52	24.7	2	0.19
315	83 Cancri	6.7		8 11	19	19.87	71	42	58.2	13	0.19

284 —S Cancri Var 2 —Period 9.48 days —Range 8th to 10.5 magnitude

290 —1286 Carrington

292 —S Hydræ Var 3 —Period 256 days —Range 8th to 13th magnitude

294 —T Cancri Var 3 —Period 484 days —Range 8th to 10.5 magnitude

295 —T Hydræ Var 4 —Period 289 days —Range, 7th to 12th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
281		<i>s</i>	<i>s</i>	<i>s</i>				
282	3710 Taylor	+ 2 2203	+ 0 0026		+ 12 222	+ 0 252		
283		+ 1 7519	- 0 0006		+ 12 304	+ 0 197		
284	S Cancri Var 2	+ 2 2103	+ 0 0023		+ 12 421	+ 0 243		
285	3767 Taylor	+ 3 4404	- 0 0130		+ 12 628	+ 0 385		
286		+ 1 2862	- 0 0089		+ 12 642	+ 0 138		
286	47 Cancri δ	+ 3 4217	- 0 0125	- 0 002	+ 12 682	+ 0 382	+ 0 24	2953
287		+ 1 9996	+ 0 0019		+ 12 743	+ 0 220		
288	11 Hydræ ϵ	+ 3 1965	- 0 0071	- 0 013	+ 12 859	+ 0 351	+ 0 04	2971
289		+ 2 2364	+ 0 0031		+ 12 921	+ 0 244		
290	60 R P L	+ 13 9054	- 1 7357		+ 13 298	+ 1 512		
291	S Hydræ Var 3	+ 3 1347	- 0 0059		+ 13 316	+ 0 336		
292		+ 3 4423	- 0 0140		+ 13 374	+ 0 368		
293	3886 Taylor	+ 2 0120	+ 0 0025		+ 13 432	+ 0 212		
294	T Cancri Var 3	+ 3 4398	- 0 0141		+ 13 475	+ 0 366		
295	Γ Hydræ Var 4	+ 2 9220	- 0 0018		+ 13 485	+ 0 309		
296		+ 2 1530	+ 0 0033		+ 13 496	+ 0 226		
297	65 Cancri α	+ 3 2377	- 0 0098	0 000	+ 13 613	+ 0 346	+ 0 04	3055
298		+ 2 0079	+ 0 0027		+ 13 670	+ 0 208		
299		+ 2 2426	+ 0 0039		+ 13 824	+ 0 231		
300		+ 1 7987	+ 0 0005		+ 13 864	+ 0 184		
301	3941 Taylor	+ 1 7375	- 0 0003		+ 13 866	+ 0 177		
302		+ 1 6080	- 0 0026		+ 13 970	+ 0 162		
303		+ 2 2872	+ 0 0040		+ 13 974	+ 0 233		
304		+ 1 6840	- 0 0010		+ 14 124	+ 0 163		
305	76 Cancri α	+ 3 2593	- 0 0094	- 0 002	+ 14 201	+ 0 335	0 00	3111
306		+ 1 4405	- 0 0062		+ 14 245	+ 0 142		
307		+ 2 3140	+ 0 0044		+ 14 292	+ 0 231		
308		+ 3 3865	+ 0 0133		+ 14 317	+ 0 340		
309		+ 2 2804	+ 0 0047		+ 14 443	+ 0 225		
310	3713 Lacaille	+ 1 8055	+ 0 0010		+ 14 460	+ 0 176		
311		+ 1 8755	+ 0 0022		+ 14 573	+ 0 132		
312		+ 2 0272	+ 0 0037		+ 14 576	+ 0 197		
313		+ 1 6009	- 0 0025		+ 14 680	+ 0 153		
314		+ 3 3335	+ 0 0019		+ 14 748	+ 0 324		
315	83 Cancri	+ 3 3685	- 0 0134	- 0 012	+ 14 864	+ 0 323	+ 0 16	3171

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
316		8.5		9	11	46.21	130	44	53.2	1	0.15
317		8.9	3	9	14	32.62	24	50	14.1	3	0.12
318		9.2	1	9	15	13.69	143	45	26.1	1	0.28
319		9.2	2	9	15	49.94	25	4	11.1	2	0.18
320		9.0	1	9	16	3.99	140	7	19.9	1	0.17
321		9.5	1	9	16	15.59	139	0	47.4	1	0.17
322	9881 O A N	9.3	1	9	17	32.56	25	3	29.2	1	0.20
323	30 Hydræ α Var 1	2.3		9	20	51.25	98	4	0.1	13	0.23
324	2 Leonis α	6.0		9	21	7.29	80	10	56.3	1	0.17
325	3853 Lacaille	8.0	1	9	22	29.81	131	59	2.0	1	0.21
326		9.1	3	9	24	30.42	130	25	54.0	3	0.18
327	6 Leonis β	6.0	1	9	24	36.90	79	40	54.5	1	0.32
328	3386 Lacaille	8.0	1	9	24	41.23	141	49	33.3	1	0.17
329	3387 Lacaille	8.0	1	9	24	53.13	140	0	16.9	1	0.17
330		9.0	1	9	26	53.60	144	57	51.3	1	0.18
331		8.8	1	9	28	52.41	128	46	39.2	1	0.22
332		8.0	1	9	28	58.85	128	49	16.2	1	0.23
333	10 Leonis	5.5		9	29	58.49	82	33	6.7	2	0.09
334	4259 Taylor	5.0	1	9	31	55.33	138	44	31.9	1	0.18
335		8.7	1	9	32	25.09	129	53	36.6	1	0.23
336	69 R P L	8.0		9	32	32.26	2	46	30.6	1	0.81
337		8.2	1	9	32	51.36	129	47	14.2	1	0.15
338	14 Leonis α	4.0		9	33	50.25	79	29	10.3	4	0.15
339		9.0		9	34	41.56	130	34	22.9	1	0.15
340	4280 Taylor	8.0	1	9	34	42.40	142	19	28.7	1	0.17
341	17 Leonis ϵ	3.0		9	38	4.16	65	35	49.1	12	0.22
342	R Leonis Var 1	8.6	4	9	40	11.14	77	56	16.3	5	0.20
343		8.0	1	9	42	39.64	130	47	31.0	1	0.15
344		8.9	1	9	43	32.16	143	45	37.4	1	0.17
345		8.0	1	9	44	3.77	147	1	19.8	1	0.19
346		9.3	1	9	45	53.44	129	2	34.2	1	0.23
347	70 R P L	6.5		9	46	7.38	5	25	32.0	6	0.22
348	4402 Taylor	7.4	2	9	49	50.89	129	47	13.5	2	0.20
349	29 Leonis π	5.0		9	52	58.29	81	18	0.3	13	0.23
350		8.0	1	9	55	49.87	147	23	57.7	1	0.19

317—319—322—Comparison stars for Comet 2 of 1861

323— α Hydræ Var 1—Supposed to vary irregularly from 2.0 to 2.5 magnitude

336—1418 Carrington

342—R Leonis Var 1—Period 312 days—Range, 5th to 10th magnitude

347—1451 Carrington.

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Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
316		+ 2 3003	+ 0 0052		+ 14 890	+ 0 219		
317		+ 4 9810	- 0 1139		+ 15 052	+ 0 473		
318		+ 1 8723	+ 0 0027		+ 15 092	+ 0 174		
319		+ 4 9487	- 0 1123		+ 15 126	+ 0 467		
320		+ 2 0225	+ 0 0045		+ 15 139	+ 0 186		
321		+ 2 0638	+ 0 0048		+ 15 151	+ 0 190		
322	9881 O A N	+ 4 9336	- 0 1164		+ 15 224	+ 0 461		
323	30 Hydree α Var 1	+ 2 9507	- 0 0018	- 0 004	+ 15 412	+ 0 268	- 0 03	3223
324	2 Leonis ω	+ 3 2199	- 0 0087		+ 15 426	+ 0 293		3227
325	3853 Lacaille	+ 2 3088	+ 0 0063		+ 15 502	+ 0 207		
326		+ 2 3571	+ 0 0064		+ 15 615	+ 0 209		
327	G Leonis h	+ 3 2243	- 0 0092	- 0 002	+ 15 619	+ 0 288	- 0 02	3251
328	3886 Lacaille	+ 2 0057	+ 0 0052		+ 15 624	+ 0 176		
329	3887 Lacaille	+ 2 0739	+ 0 0057		+ 15 635	+ 0 182		
330		+ 1 8906	+ 0 0038		+ 15 743	+ 0 164		
331		+ 2 4141	+ 0 0067		+ 15 850	+ 0 209		
332		+ 2 4134	+ 0 0068		+ 15 856	+ 0 208		
333	10 Leonis	+ 3 1735	- 0 0077		+ 15 909	+ 0 276		3236
334	4259 Taylor	+ 3 1544	+ 0 0063		+ 16 012	+ 0 182		3300
335		+ 2 4011	+ 0 0072		+ 16 039	+ 0 203		
336	69 R P L	+ 19 6194	- 5 8156		+ 16 045	+ 1 710		
337		+ 2 4053	+ 0 0072		+ 16 062	+ 0 203		
338	14 Leonis σ	+ 3 2197	- 0 0093	- 0 013	+ 16 113	+ 0 272	+ 0 04	3312
339		+ 2 3939	+ 0 0075		+ 16 153	+ 0 200		
340	4280 Taylor	+ 2 0465	+ 0 0065		+ 16 153	+ 0 170		
341	17 Leonis ϵ	+ 3 4241	- 0 0180	- 0 004	+ 16 331	+ 0 232	+ 0 02	3331
342	R Leonis Var 1	+ 3 2357	- 0 0101		+ 16 438	+ 0 263		3345
343		+ 2 4213	+ 0 0084		+ 16 560	+ 0 192		
344		+ 2 0489	+ 0 0075		+ 16 604	+ 0 160		
345		+ 1 9203	+ 0 0060		+ 16 630	+ 0 150		
346		+ 2 4732	+ 0 0086		+ 16 718	+ 0 192		
347	70 R P L	+ 10 8353	- 1 5957		+ 16 729	+ 0 864		
348	4402 Taylor	+ 2 4731	+ 0 0091		+ 16 907	+ 0 187		
349	29 Leonis π	+ 3 1797	- 0 0081	- 0 003	+ 17 053	+ 0 236	+ 0 03	3415
350		+ 1 9940	+ 0 0086		+ 17 133	+ 0 143		

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
351		80	1	9	56	24 14	144	3	33 7	1	0 20
352	4476 Taylor	89	1	9	57	23 75	145	35	45 6	1	0 17
353	31 Leonis A	50		10	0	37 82	79	19	58 0	2	0 17
354	32 Leonis α (<i>Regulus</i>)	13		10	1	43 4	77	21	53 2	20	0 24
355	4538 Taylor	70		10	6	6 78	129	19	7 2	1	0 23
356		90	1	10	8	59 19	139	51	23 4	1	0 21
357	72 B P L	60		10	9	10 79	5	3	20 2	4	0 50
358	4577 Taylor	90	1	10	9	45 09	128	36	39 0	2	0 21
359	41 Leonis γ^1	20		10	12	24 85	69	28	1 5	14	0 21
360		90	1	10	14	36 11	150	25	19 3	1	0 17
361	43 Leonis	65		10	15	50 04	82	45	46 6	2	0 10
362		90	1	10	16	9 40	129	15	55 9	1	0 23
363	44 Leonis	60		10	18	1 87	80	31	13 6	1	0 25
364		97	1	10	18	43 26	146	8	10 2	1	0 10
365		89	1	10	21	50 24	146	54	34 8	1	0 17
366	47 Leonis ρ	43		10	25	35 67	79	59	22 8	12	0 23
367		95	1	10	29	10 39	147	53 17 9		1	0 10
368	4769 Taylor	60	1	10	30	20 20	146	50	58 0	1	0 17
369	R Ursæ Majoris Var 1	70	5	10	34	54 01	20	30	25 3	5	0 22
370		95	1	10	35	19 32	137	19	15 0	1	0 09
371		80	1	10	38	44 67	144	50	1 4	1	0 18
372		90	1	10	41	22 73	146	22	52 8	1	0 10
373	53 Leonis <i>l</i>	60		10	42	3 21	78	43	51 1	11	0 29
374		90	1	10	42	34 28	141	4	7 1	1	0 18
375		89	1	10	43	50 46	137	2	29 7	1	0 19
376		78	1	10	46	0 31	141	39	32 0	1	0 29
377		90	1	10	47	50 58	150	5	12 9	1	0 17
378		90	1	10	47	56 36	129	23	53 1	1	0 21
379	4945 Taylor	70	1	10	48	53 30	144	53	22 0	1	0 18
380		80	1	10	50	13 69	144	30	10 9	1	0 20
381	4955 Taylor	70	1	10	50	38 19	147	19	17 2	1	0 19
382	4969 Taylor	90	1	10	52	16 75	143	35	55 0	1	0 10
383		89	1	10	52	50 29	139	32	28 7	1	0 19
384	59 Leonis ϵ	55		10	53	38 56	88	9	48 8	2	0 17
385	61 Leonis p^1	55		10	54	50 53	91	44	52 2	2	0 32

357 —1620 Groombridge

369 —R Ursæ Majoris Var 1—Period 303 days—Range, 6th to 13th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
351		+ 2 1250	+ 0 0102		+ 17 209	+ 0 152		
352	4476 Taylor	+ 2 0798	+ 0 0100		+ 17 272	+ 0 147		
353	31 Leonis A	+ 3 1974	- 0 0091	- 0 009	+ 17 396	+ 0 225	+ 0 05	3457
354	32 Leonis a	+ 3 2206	- 0 0102	- 0 019	+ 17 415	+ 0 225	- 0 01	3459
355	4538 Taylor	+ 2 5502	+ 0 0109		+ 17 630	+ 0 169		
356		+ 2 3338	+ 0 0131		+ 17 748	+ 0 150		
357	72 R P L	+ 10 0984	- 1 6698	- 0 079	+ 17 756	+ 0 677	+ 0 05	3495
358	4577 Taylor	+ 2 5731	+ 0 0112		+ 17 779	+ 0 166		
359	41 Leonis γ^1	+ 3 2985	- 0 0147	+ 0 019	+ 17 886	+ 0 208	+ 0 15	3523
360		+ 2 0266	+ 0 0122		+ 17 972	+ 0 123		
361	43 Leonis	+ 3 1466	- 0 0068		+ 18 019	+ 0 194		3544
362		+ 2 5936	+ 0 0121		+ 18 031	+ 0 153		
363	44 Leonis	+ 3 1632	- 0 0079		+ 13 103	+ 0 191		3561
364		+ 2 2200	+ 0 0152		+ 18 128	+ 0 131		
365		+ 2 2199	+ 0 0160		+ 18 243	+ 0 126		
366	47 Leonis ρ	+ 3 1664	- 0 0079	0 000	+ 18 378	+ 0 176	+ 0 03	3609
367		+ 2 2461	+ 0 0181		+ 18 501	+ 0 119		
368	4769 Taylor	+ 2 2915	+ 0 0184		+ 18 540	+ 0 120		3635
369	R Urs Maj Var 1	+ 4 3691	- 0 1402		+ 18 689	+ 0 223		
370		+ 2 5434	+ 0 0177		+ 18 701	+ 0 126		
371		+ 2 4132	+ 0 0207		+ 18 808	+ 0 114		
372		+ 2 3956	+ 0 0218		+ 18 887	+ 0 109		
373	53 Leonis l	+ 3 1609	- 0 0080	- 0 003	+ 18 907	+ 0 145	+ 0 02	3708
374		+ 2 5235	+ 0 0205		+ 18 922	+ 0 114		
375		+ 2 6036	+ 0 0198		+ 18 953	+ 0 116		
376		+ 2 5356	+ 0 0215		+ 19 019	+ 0 109		
377		+ 2 3521	+ 0 0346		+ 19 070	+ 0 093		
378		+ 2 7315	+ 0 0164		+ 19 072	+ 0 115		
379	4945 Taylor	+ 2 4914	+ 0 0236		+ 19 098	+ 0 103		
380		+ 2 5104	+ 0 0233		+ 19 133	+ 0 102		
381	4955 Taylor	+ 2 4508	+ 0 0250		+ 19 144	+ 0 097		
382	4969 Taylor	+ 2 5440	+ 0 0239		+ 19 186	+ 0 100		
383		+ 2 6191	+ 0 0222		+ 19 200	+ 0 102		
384	59 Leonis c	+ 2 5232	- 0 0055	- 0 005	+ 19 220	+ 0 139	+ 0 06	3769
385	61 Leonis p^1	+ 3 0606	- 0 0007		+ 19 250	+ 0 117		3775

+ 3 1149 - 2 0052

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
386	4076 Lacaille	9 0	1	10	56	59 40	145	35	22 4	1	0 18
387		8 2	1	10	57	46 14	129	34	13 0	1	0 22
388		5 0		10	57	56 90	81	55	26 5	8	0 29
389		9 5	1	10	58	9 40	140	58	54 6	1	0 18
390	65 Leonis ρ^3	5 5		10	59	55 01	87	18	6 0	1	0 17
391	5092 Taylor	9 5	1	11	0	34 00	147	13	24 8	1	0 19
392		8 7	1	11	5	16 22	143	48	48 3	1	0 27
393		2 5		11	6	49 04	68	43	35 1	11	0 32
394		8 8	1	11	7	4 51	145	39	55 0	1	0 27
395	68 Leonis δ	8 4	2	11	8	31 33	150	50	31 6	2	0 21
396		10 0	1	11	9	26 23	145	54	54 6	1	0 18
397		9 0	1	11	9	36 60	147	10	54 2	1	0 19
398		4 7		11	9	41 76	92	54	12 3	4	0 19
399	74 Leonis ϕ	10 0	1	11	10	29 26	141	8	15 3	1	0 18
400		9 0		11	11	5 42	127	38	2 2	1	0 21
401		3 3		11	12	29 59	104	2	15 0	13	0 33
402		7 8	1	11	12	45 72	129	31	48 6	1	0 23
403	12 Crateris δ	8 2	2	11	19	22 11	129	30	37 5	2	0 23
404		9 5	1	11	21	39 16	128	22	27 3	2	0 29
405		9 0	1	11	22	45 50	145	53	23 6	1	0 18
406		9 2	1	11	23	8 90	142	52	15 8	1	0 28
407	87 Leonis ϵ	5 5		11	23	18 71	92	14	53 9	3	0 15
408		9 8	3	11	23	13 84	23	20	52 0	3	0 23
409		10 0	2	11	26	36 13	23	17	16 5	2	0 23
410		8 9	1	11	29	48 26	149	15	22 2	1	0 17
411	91 Leonis ν	4 7		11	29	56 07	90	4	4 1	13	0 31
412		8 0	1	11	32	6 37	144	14	11 0	1	0 20
413		8 4	1	11	33	54 38	127	48	55 5	1	0 24
414		7 9	1	11	34	17 41	144	20	21 7	1	0 27
415	5384 Taylor	7 9	1	11	36	0 31	139	39	56 1	1	0 20
416		6 0	1	11	36	59 90	151	43	47 3	1	0 10
417		9 3	1	11	38	6 44	149	38	28 8	1	0 27
418		9 2	2	11	38	39 07	129	33	42 1	2	0 26
419		9 2	1	11	41	5 95	126	30	4 9	1	0 24
420		8 3	2	11	41	9 28	129	31	44 3	2	0 23

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
386		+ 2 5421	+ 0 0263		+ 19 302	+ 0 092		
387	4076 Lacaille	+ 2 7757	+ 0 0179		+ 19 320	+ 0 100		
388	63 Leonis χ	+ 3 1227	- 0 0056	- 0 024	+ 19 325	+ 0 112	+ 0 08	3788
389		+ 2 6321	+ 0 0242		+ 19 329	+ 0 094		
390	65 Leonis p^s	+ 3 0884	- 0 0028		+ 19 370	+ 0 109		3798
391		+ 2 5396	+ 0 0282		+ 19 384	+ 0 087		
392	5092 Taylor	+ 2 6397	+ 0 0276		+ 19 486	+ 0 083		
393	68 Leonis δ	+ 3 1917	- 0 0132	+ 0 011	+ 19 518	+ 0 098	+ 0 14	3834
394		+ 2 6240	+ 0 0294		+ 19 523	+ 0 079		
395		+ 2 5383	+ 0 0441		+ 19 551	+ 0 074		
396		+ 2 6397	+ 0 0304		+ 19 569	+ 0 076		
397		+ 2 6199	+ 0 0333		+ 19 572	+ 0 075		
398	74 Leonis ϕ	+ 3 0573	+ 0 0006	- 0 009	+ 19 574	+ 0 089	+ 0 04	3848
399		+ 2 7164	+ 0 0278		+ 19 589	+ 0 077		
400		+ 2 8537	+ 0 0186		+ 19 601	+ 0 080		
401	12 Crateris δ	+ 3 0031	+ 0 0064	- 0 009	+ 19 626	+ 0 081	- 0 18	3859
402		+ 2 8463	+ 0 0200		+ 19 630	+ 0 077		
403		+ 2 8776	+ 0 0209		+ 19 741	+ 0 065		
404		+ 2 8957	+ 0 0205		+ 19 775	+ 0 061		
405		+ 2 7527	+ 0 0344		+ 19 790	+ 0 056		
406		+ 2 7893	+ 0 0318		+ 19 787	+ 0 056		
407	87 Leonis c	+ 3 0637	+ 0 0011	- 0 001	+ 19 799	+ 0 062	+ 0 03	3916
408		+ 3 5657	- 0 0905		+ 19 799	+ 0 074		
409		+ 3 5231	- 0 0323		+ 19 843	+ 0 065		
410		+ 2 7768	+ 0 0406		+ 19 881	+ 0 044		
411	91 Leonis v	+ 3 0713	+ 0 0003	- 0 003	+ 19 883	+ 0 049	- 0 08	3946
412		+ 2 8487	+ 0 0356		+ 19 907	+ 0 041		
413		+ 2 9541	+ 0 0219		+ 19 925	+ 0 040		
414		+ 2 8634	+ 0 0364		+ 19 929	+ 0 037		
415		+ 2 9074	+ 0 0320		+ 19 945	+ 0 035		
416	5384 Taylor	+ 2 8230	+ 0 0470		+ 19 954	+ 0 032		3976
417		+ 2 8543	+ 0 0444		+ 19 964	+ 0 030		
418		+ 2 9693	+ 0 0237		+ 19 968	+ 0 031		
419		+ 2 9905	+ 0 0218		+ 19 987	+ 0 027		
420		+ 2 9814	+ 0 0240		+ 19 987	+ 0 027		

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
421	94 Leonis β	20		11	42	4 17	74	39	45 0	6	0 35
422		93	1	11	43	5 22	143	44	54 7	1	0 27
423	5427 Taylor	60	3	11	44	2 03	94	34	18 1	3	0 15
424		82	1	11	44	41 15	129	2	19 6	1	0 24
425	5433 Taylor	78	2	11	44	48 41	129	32	40 8	2	0 23
426		94	1	11	45	48 58	142	30	41 1	1	0 28
427		87		11	49	53 93	128	5	8 2	1	0 24
428		87	1	11	51	20 73	128	52	13 9	1	0 24
429		90	1	11	51	33 69	144	12	35 9	1	0 28
430		97	2	11	53	47 12	129	35	29 0	2	0 23
431		90	1	11	56	20 43	128	29	37 2	1	0 37
432	5534 Taylor	80	1	11	56	46 47	143	56	59 0	1	0 27
433	4995 Lacaille	73	1	11	56	51 02	142	44	6 0	1	0 29
434	89 R P L	63		11	57	48 13	3	39	13 4	10	0 43
435		80	1	11	58	58 32	128	27	25 6	1	0 24
436		80	1	11	59	41 35	144	15	51 2	1	0 23
437		90	1	12	1	33 96	130	1	14 1	1	0 23
438	5041 Lacaille	62	1	12	2	29 66	141	22	52 4	1	0 27
439		95	1	12	2	34 21	141	5	17 7	1	0 10
440	2 Corvi ϵ	30		12	3	4 96	111	51	28 0	5	0 34
441		90	1	12	3	35 27	145	56	44 2	1	0 27
442		80	1	12	5	44 87	134	7	45 7	1	0 32
443		95	1	12	5	59 86	130	10	45 5	1	0 23
444		80	1	12	6	9 37	138	27	11 7	1	0 23
445		94	1	12	6	26 01	142	50	19 4	1	0 29
446	5613 Taylor	72	1	12	7	52 ³³ 61	130	22	28 7	1	0 24
447	69 Urs Maj δ (Mizar)	45		12	8	37 92	32	12	22 1	3	0 25
448		80	1	12	8	46 95	144	19	53 0	1	0 28
449	15 Virginis η	37		12	12	53 82	89	54	19 3	4	0 36
450		96	1	12	14	0 35	143	44	28 3	1	0 27
451	5119 Lacaille	90	1	12	15	18 51	138	33	54 9	1	0 13
452		85	1	12	15	48 74	141	39	37 5	1	0 27
453		89	1	12	16	42 61	147	9	26 1	1	0 27
454		100	1	12	18	35 77	143	29	47 8	1	0 29
455		93	1	12	18	57 33	129	43	26 9	1	0 23

434.—1850 Groombridge

422 — Double comparison fainter and n. p. of the one observed

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
421	94 Leonis β	+ 3 1007	- 0 0074	- 0 036	+ 19 994	+ 0 025	+ 0 10	8995
422		+ 2 9876	+ 0 0382		+ 20 000	+ 0 022		
423	5427 Taylor	+ 3 0646	+ 0 0034		+ 20 007	+ 0 022		4006
424		+ 2 9997	+ 0 0241		+ 20 011	+ 0 020		
425	5438 Taylor	+ 2 9990	+ 0 0246		+ 20 011	+ 0 020		
426		+ 2 9841	+ 0 0373		+ 20 017	+ 0 017		
427		+ 3 0259	+ 0 0241		+ 20 036	+ 0 010		
428		+ 3 0314	+ 0 0249		+ 20 041	+ 0 007		
429		+ 3 0038	+ 0 0410		+ 20 042	+ 0 007		
430		+ 3 0420	+ 0 0258		+ 20 048	+ 0 003		
431		+ 3 0550	+ 0 0253		+ 20 053	- 0 002		
432	5534 Taylor	+ 3 0462	+ 0 0421		+ 20 053	- 0 003		
433	4995 Lacaille	+ 3 0479	+ 0 0404		+ 20 053	- 0 003		
434	89 R P L	+ 3 2726	- 0 5270		+ 20 054	- 0 004		4070
435		+ 3 0673	+ 0 0255		+ 20 055	- 0 007		
436		+ 3 0695	+ 0 0434		+ 20 055	- 0 009		
437		+ 3 0798	+ 0 0273		+ 20 054	- 0 012		
438	5041 Lacaille	+ 3 0903	+ 0 0400		+ 20 054	- 0 014		
439		+ 3 0906	+ 0 0396		+ 20 054	- 0 015		
440	2 Corvi ϵ	+ 3 0792	+ 0 0142	- 0 005	+ 20 054	- 0 016	- 0 01	4097
441		+ 3 1030	+ 0 0473		+ 20 053	- 0 016		
442		+ 3 1045	+ 0 0318		+ 20 049	- 0 021		
443		+ 3 1016	+ 0 0280		+ 20 043	- 0 021		
444		+ 3 1126	+ 0 0369		+ 20 043	- 0 022		
445		+ 3 1216	+ 0 0410		+ 20 043	- 0 022		
446	5613 Taylor	+ 3 1111	+ 0 0284		+ 20 044	- 0 025		
447	69 Urs Maj δ	+ 2 9922	- 0 0445	+ 0 015	+ 20 041	- 0 026	+ 0 04	4123
448		+ 3 1434	+ 0 0460		+ 20 041	- 0 027		
449	15 Virginis η	+ 3 0719	+ 0 0027	- 0 007	+ 20 023	- 0 035	+ 0 03	4145
450		+ 3 1833	+ 0 0464		+ 20 018	- 0 038		
451	5119 Lacaille	+ 3 1731	+ 0 0333	"	+ 20 010	- 0 040		
452		+ 3 1836	+ 0 0435		+ 20 008	- 0 042		
453		+ 3 2229	+ 0 0535		+ 20 001	- 0 044		
454		+ 3 2185	+ 0 0464		+ 19 989	- 0 047		
455		+ 3 1638	+ 0 0292		+ 19 987	- 0 047		

0 0425 —

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
456		7.8	1	12	18	59.97	147	20	59.3	1	0.21
457		7.9	1	12	19	59.98	144	3	50.2	1	0.28
458		8.5	1	12	19	49.79	124	12	47.8	1	0.32
459		7.8	1	12	20	42.62	141	18	58.0	1	0.28
460	5725 Taylor	7.0	1	12	21	6.95	145	38	27.1	1	0.18
461	21 Virginis η	5.5	2	12	26	42.48	98	41	45.2	2	0.27
462	9 Corvi β	2.3		12	27	11.69	112	38	19.7	5	0.37
463		9.0	1	12	27	46.22	140	55	11.2	1	0.28
464		9.0	1	12	30	47.53	142	19	22.4	1	0.28
465	R Virginis Var 2	9.1	3	12	31	32.83	82	15	27.4	3	0.33
466		9.3	1	12	31	43.89	84	30	11.7	1	0.38
467	26 Virginis χ	5.0	2	12	32	10.64	97	14	27.6	5	0.28
468		9.0	1	12	32	46.05	143	7	2.1	1	0.29
469		8.9	1	12	33	43.61	145	33	10.0	1	0.27
470	5380 Taylor	7.8	1	12	34	23.55	144	0	34.8	1	0.27
471	29 Virginis γ^1 (north)	8.5		12	34	43.09	90	41	49.0	1	0.40
472	S Ursae Majoris Var 2	8.5	1	12	37	54.71	28	9	19.6	1	0.38
473	5863 Taylor	7.5	1	12	38	18.48	143	51	43.8	1	0.27
474		8.8	1	12	41	36.48	141	49	14.8	1	0.28
475		9.0	1	12	42	20.72	147	18	24.6	1	0.27
476		8.9	1	12	42	44.02	142	51	35.8	1	0.29
477		9.0	1	12	42	47.52	139	24	55.7	1	0.28
478		8.9	1	12	43	13.93	129	7	30.6	1	0.29
479	40 Virginis ψ	5.0	1	12	47	13.92	98	47	38.8	2	0.25
480	99 R P L	5.6		12	48	10.08	5	50	38.2	2	0.59
481		8.9	1	12	49	20.13	145	33	53.6	1	0.27
482	12 Canum Venaticorum α	3.0		12	49	36.76	50	56	28.9	5	0.38
483	5974 Taylor	8.9	1	12	51	50.95	143	38	16.2	1	0.27
484		8.4	2	12	53	4.27	142	23	44.0	2	0.28
485		8.0	1	12	53	22.37	135	44	7.9	1	0.32
486		9.2	1	12	54	34.52	139	18	3.3	1	0.28
487		8.3	1	12	56	56.17	123	24	51.4	1	0.32
488	5381 Lacaille	7.8	1	12	57	4.42	129	56	47.9	1	0.31
489	51 Virginis θ	4.7		13	2	51.48	94	48	25.0	5	0.37
490	6057 Taylor	6.0	1	13	3	43.62	149	11	25.0	1	0.18

465 — R Virginis Var 2 — Period 146 days — Range 6.5 to 11th magnitude

472 — S Ursae Majoris Var 2 — Period 225 days — Range 7th to 12th magnitude

480 — 1940 Groombridge

482 — Second star

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A O
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
456		+ 3 2449	+ 0 0546		+ 19 986	- 0 040		
457		+ 3 2266	+ 0 0432		+ 19 984	- 0 049		
458		+ 3 1506	+ 0 0244		+ 19 979	- 0 049		
459		+ 3 2228	+ 0 0438		+ 19 973	- 0 051		
460	5725 Taylor	+ 3 2519	+ 0 0517		+ 19 970	- 0 045		
461	21 Virginis η	+ 3 0959	+ 0 0080	- 0 009	+ 19 919	- 0 062	0 00	4230
462	9 Corvi β	+ 3 1379	+ 0 0164	- 0 008	+ 19 915	- 0 064	+ 0 07	4234
463		+ 3 2711	+ 0 0447		+ 19 908	- 0 067		
464		+ 3 3039	+ 0 0476		+ 19 874	- 0 074		
465	R Virginis Var 2	+ 3 0471	- 0 0003		+ 19 865	- 0 070		
466		+ 3 0541	+ 0 0065		+ 19 862	- 0 071		
467	26 Virginis χ	+ 3 0958	+ 0 0075	\wedge	+ 19 857	- 0 072	\wedge	4257
468		+ 3 3259	+ 0 0496		+ 19 850	- 0 079		
469		+ 3 3579	+ 0 0543		+ 19 838	- 0 081		
470	5830 Taylor	+ 3 3472	+ 0 0513		+ 19 829	- 0 082		4266
471	29 Virginis γ^1	+ 3 0744	+ 0 0043	- 0 037	+ 19 826	- 0 078	+ 0 05	4268
472	S Urs Maj Var 2	+ 2 6607	- 0 0360		+ 19 781	- 0 073		
473	5863 Taylor	+ 3 3767	+ 0 0521		+ 19 776	- 0 091		4283
474		+ 3 3790	+ 0 0490		+ 19 726	- 0 097		
475		+ 3 4543	+ 0 0613		+ 19 714	- 0 101		
476		+ 3 3993	+ 0 0512		+ 19 707	- 0 100		
477		+ 3 3613	+ 0 0449		+ 19 706	- 0 099		
478		+ 3 2760	+ 0 0313		+ 19 700	- 0 098		
479	40 Virginis ψ	+ 3 1144	+ 0 0092	- 0 002	+ 19 631	- 0 101	+ 0 04	4330
480	99 R P L	+ 0 3463	+ 0 2269	- 0 017	+ 19 614	- 0 019	- 0 04	4339
481		+ 3 4886	+ 0 0586		+ 19 593	- 0 117		
482	12 Can Ven α	+ 2 3339	- 0 0152	- 0 023	+ 19 587	- 0 090	- 0 06	4346
483	5974 Taylor	+ 3 4794	+ 0 0546		+ 19 544	- 0 122		
484		+ 3 4704	+ 0 0522		+ 19 519	- 0 109		
485		+ 3 3837	+ 0 0407		+ 19 514	- 0 123		
486		+ 3 4337	+ 0 0465		+ 19 489	- 0 127		
487		+ 3 2839	+ 0 0263		+ 19 440	- 0 126		
488	5381 Lacaille	+ 3 3431	+ 0 0335		+ 19 437	- 0 123		
489	51 Virginis θ	+ 3 1025	+ 0 0078	- 0 004	+ 19 306	- 0 132	+ 0 04	4401
490	6057 Taylor	+ 3 6375	+ 0 0719		+ 19 235	- 0 156		4412

480—Proper Motions adopted from ' *Baird's Polar List for 1855* '

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
491	W Virginis Var 1	9.2	1	13	4	28.48	138	10	13.4	1	0.29
492		9.5	1	13	4	32.00	143	12	0.9	1	0.27
493		8.9	1	13	5	38.90	124	16	11.8	1	0.32
494		8.8	1	13	6	51.05	105	49	35.1	2	0.39
495		9.0	1	13	7	35.75	199	45	53.0	1	0.28
496	58 Virginis	8.7	1	13	9	42.08	129	55	57.0	1	0.31
497		6.5		13	10	16.63	99	49	23.6	2	0.40
498		7.4	1	13	12	9.65	130	28	12.3	1	0.37
499		7.9	1	13	12	49.63	122	56	14.5	1	0.33
500		8.0	1	13	14	5.50	125	23	32.1	1	0.38
501	5503 Lacaille	9.0	1	13	15	43.91	145	12	31.9	1	0.27
502		1.0		13	17	53.63	100	26	42.5	9	0.96
503		10.2	1	13	19	17.48	116	56	5.0	1	0.34
504		9.0	1	13	19	37.46	143	27	9.0	1	0.28
505		7.3		13	20	15.53	4	31	44.6	1	0.93
506	R Hydrae Var 1	6.8	3	13	22	13.91	112	34	19.6	4	0.31
507	76 Virginis h	5.0	1	13	25	45.31	100	27	29.7	3	0.28
508	S Virginis Var 6	7.4	4	13	25	50.89	96	29	22.2	4	0.30
509	79 Virginis 3	4.0		13	27	42.82	89	55	39.8	12	0.39
510		7.8	1	13	32	54.55	129	1	18.1	1	0.29
511	6363 Taylor	8.0	1	13	36	34.58	147	33	9.7	1	0.29
512		9.0	1	13	37	27.78	123	39	58.8	1	0.10
513		8.8	1	13	38	10.39	122	46	44.4	1	0.35
514		9.3	1	13	40	26.82	129	23	43.2	1	0.38
515		9.3	3	13	42	15.16	64	57	26.5	3	0.32
516	89 Virginis	5.7		13	42	25.86	107	27	0.7	2	0.41
517		8.3	1	13	43	10.81	123	6	14.3	1	0.36
518		9.0	1	13	44	11.61	127	56	26.1	1	0.38
519		9.7	1	13	45	19.85	128	22	47.0	1	0.40
520		8.3	2	13	45	38.93	122	54	14.1	2	0.33
521	8 Bootis γ	3.0		13	48	9.62	70	54	51.9	9	0.40
522		8.0	1	13	50	37.09	123	43	37.5	1	0.35
523		7.6	4	13	54	39.24	67	21	29.6	5	0.36
524		4.5		13	54	40.51	87	47	27.2	5	0.41
525		7.5	4	13	59	51.48	67	10	35.8	4	0.33

494 — W Virginis Var 1 — Changes irregularly from 7th to 10.5 magnitude

505 — 2007 Groombridge

506 — R Hydrae Var 1 — Period about 15 months — Range 4th to 10th magnitude

508 — S Virginis Var 6 — Period 374 days — Range, 6th to 12.5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
491		+ 3 4868	+ 0 0459		+ 19 267	- 0 150		
492		+ 3 5687	+ 0 0562		+ 19 266	- 0 158		
493		+ 3 3292	+ 0 0282		+ 19 240	- 0 145		
494	W Virginis Var 1	+ 3 1810	+ 0 0142		+ 19 208	- 0 142		
495		+ 3 5314	+ 0 0493		+ 19 189	- 0 158		
496		+ 3 4072	+ 0 0346		+ 19 185	- 0 157		
497	58 Virginis	+ 3 1420	+ 0 0109		+ 19 120	- 0 147		4442
498	6129 Taylor	+ 3 4253	+ 0 0353		+ 19 069	- 0 163		
499		+ 3 3427	+ 0 0273		+ 19 051	- 0 161		
500	5503 Lacaille	+ 3 3789	+ 0 0298		+ 19 016	- 0 164		
501		+ 3 6965	+ 0 0629		+ 18 970	- 0 183		
502	67 Virginis a	+ 3 1544	+ 0 0100	- 0 005	+ 18 906	- 0 163	+ 0 04	4480
503	12872 O A 9	+ 3 3024	+ 0 0224		+ 18 867	- 0 172		
504	5546 Lacaille	+ 3 6862	+ 0 0589		+ 18 857	- 0 192		
505	103 R P L	- 2 7201	+ 0 9899		+ 18 836	+ 0 128		4498
506	R Hydræ Var 1	+ 3 2672	+ 0 0192		+ 18 779	- 0 176		4501
507	76 Virginis h	+ 3 1535	+ 0 0113		+ 18 668	- 0 176		4521
508	S Virginis Var 6	+ 3 1277	+ 0 0096		+ 18 664	- 0 175		
509	79 Virginis 3	+ 3 0710	+ 0 0064	- 0 019	+ 18 605	- 0 176	- 0 06	4532
510		+ 3 4994	+ 0 0349		+ 18 429	- 0 210		
511	6363 Taylor	+ 3 9822	+ 0 0733		+ 18 300	- 0 243		
512		+ 3 5135	+ 0 0346		+ 18 270	- 0 220		
513		+ 3 4297	+ 0 0283		+ 18 242	- 0 216		
514		+ 3 5380	+ 0 0356		+ 18 160	- 0 228		
515	25463 Lalande	+ 2 8026	- 0 0032		+ 18 092	- 0 184		
516	89 Virginis	+ 3 2537	+ 0 0164	- 0 009	+ 18 085	- 0 213	+ 0 03	4608
517		+ 3 4514	+ 0 0287		+ 18 057	- 0 227		
518		+ 3 5297	+ 0 0341		+ 18 018	- 0 235		
519		+ 3 5418	+ 0 0346		+ 17 974	- 0 238		
520		+ 3 4568	+ 0 0286		+ 17 962	- 0 233		
521	8 Bootis γ	+ 2 8617	- 0 0006	- 0 004	+ 17 868	- 0 199	+ 0 36	4648
522		+ 3 4863	+ 0 0295		+ 17 764	- 0 244		
523	25759 Lalande	+ 2 8047	- 0 0016		+ 17 597	- 0 204		
524	93 Virginis τ	+ 3 0474	+ 0 0064	+ 0 001	+ 17 596	- 0 221	+ 0 07	4672
525	25896 Lalande	+ 2 7911	- 0 0023		+ 17 374	- 0 210		

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
526	6585 Taylor	7.8	1	14	1	18.94	124	13	46.7	1	0.85
527		9.0		14	2	22.89	129	3	58.4	1	0.41
528	108 R P L	7.8		14	4	4.24	3	35	11.3	2	0.62
529	U Bootis Var 4	9.7	1	14	4	18.65	79	32	14.1	1	0.40
530	6616 Taylor	5.7		14	5	26.28	146	26	31.9	1	0.33
531		8.0	1	14	6	5.20	135	1	0.6	1	0.35
532	16 Bootis α (Arcturus)	1.0		14	9	24.78	70	6	11.5	5	0.13
533	100 Virginis λ	5.0		14	11	41.84	102	44	19.0	3	0.38
534		9.3	1	14	12	26.89	136	49	32.4	1	0.35
535		8.9	1	14	14	30.90	122	35	29.6	1	0.33
536		8.7		14	15	15.99	122	11	13.7	1	0.35
537	6709 Taylor	7.0	1	14	15	55.15	119	3	2.1	1	0.35
538		9.9	1	14	17	21.04	123	13	6.2	1	0.33
539	6740 Taylor	7.6	1	14	19	1.39	133	42	38.0	1	0.32
540		8.7	1	14	21	53.94	122	33	43.7	1	0.33
541	5962 Lacaille	8.0	1	14	22	38.49	129	46	28.6	1	0.33
542		8.0	1	14	23	38.57	136	54	8.5	1	0.35
543		8.0	1	14	24	9.13	123	48	17.8	1	0.34
544	25 Bootis ρ	4.0		14	25	55.47	59	1	33.5	6	0.42
545		9.5	1	14	26	40.04	123	19	45.2	1	0.33
546		7.8	1	14	29	23.02	124	55	13.4	1	0.37
547	6027 Lacaille	7.7	1	14	31	0.63	122	47	2.2	1	0.33
548	R Bootis Var 1	8.2	2	14	31	9.02	62	40	3.1	3	0.33
549		7.6	1	14	32	38.73	121	44	2.6	1	0.35
550	6848 Taylor	7.7	1	14	32	44.22	136	41	2.4	1	0.35
551	5 Libræ	6.3		14	33	24.82	104	52	48.4	1	0.36
552	36 Bootis ϵ	2.3		14	39	0.13	62	20	48.1	5	0.43
553		7.7	1	14	39	16.66	124	9	20.8	1	0.37
554	27022 Lalande	7.5	3	14	43	10.43	78	56	9.6	4	0.35
555	9 Libræ α^2	2.5		14	43	18.15	105	28	12.9	4	0.39
556	27123 Lalande	8.2	3	14	47	20.01	109	27	7.9	4	0.36
557		8.9	1	14	51	31.68	123	12	29.6	1	0.37
558		8.3	1	14	57	38.39	131	30	27.2	1	0.35
559	43 Bootis ψ	5.0		14	58	34.52	62	30	59.2	5	0.47
560	7079 Taylor	6.7		15	3	16.26	123	7	1.1	1	0.36

528—2099 Groombridge

529—U Bootis Var 4—Period uncertain—Range 8.7 to 12th magnitude

548—R Bootis Var 1—Period 223 days—Range 6th to 12th magnitude

556—Comparison star for Iris in 1861

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
526	6585 Taylor	+ 3 5314	+ 0 0302		+ 17 310	- 0 268		
527		+ 3 6245	+ 0 0357		+ 17 263	- 0 276		
528	108 R P L	- 7 9195	+ 2 5264		+ 17 187	+ 0 588		
529	U Bootis Var 4	+ 2 9446	+ 0 0035		+ 17 177	- 0 229		
530	6616 Taylor	+ 4 1210	+ 0 0686		+ 17 125	- 0 320		4709
531		+ 3 7715	+ 0 0445		+ 17 096	- 0 295		
532	16 Bootis α	+ 2 8132	+ 0 0004	- 0 079	+ 16 943	- 0 227	+ 1 93	4729
533	100 Virginis λ	+ 3 2363	+ 0 0140	- 0 002	+ 16 834	- 0 264	- 0 02	4743
534		+ 3 8505	+ 0 0477		+ 16 798	- 0 314		
535		+ 3 5455	+ 0 0284		+ 16 699	- 0 293		
536		+ 3 5405	+ 0 0281		+ 16 662	- 0 294		
537	6709 Taylor	+ 3 4872	+ 0 0252		+ 16 630	- 0 292		
538		+ 3 5659	+ 0 0292		+ 16 560	- 0 301		
539	6740 Taylor	+ 3 8007	+ 0 0423		+ 16 477	- 0 323		
540		+ 3 5675	+ 0 0285		+ 16 332	- 0 309		
541	5962 Lacaille	+ 3 7209	+ 0 0365		+ 16 295	- 0 324		
542		+ 3 9102	+ 0 0476		+ 16 243	- 0 342		
543		+ 3 5987	+ 0 0297		+ 16 217	- 0 316		
544	25 Bootis ρ	+ 2 5948	- 0 0015	- 0 008	+ 16 126	- 0 233	- 0 14	4808
545		+ 3 5970	+ 0 0281		+ 16 087	- 0 321		
546		+ 3 6333	+ 0 0306		+ 15 944	- 0 329		
547	6027 Lacaille	+ 3 5992	+ 0 0234		+ 15 857	- 0 329		
548	R Bootis Var 1	+ 2 6436	- 0 0004		+ 15 849	- 0 244		
549		+ 3 5330	+ 0 0274		+ 15 769	- 0 330		
550	6848 Taylor	+ 3 9487	+ 0 0469		+ 17 764	- 0 364		
551	5 Libræ	+ 3 2986	+ 0 0152	- 0 003	+ 15 452	- 0 314	+ 0 01	4808
552	35 Bootis ϵ	+ 2 6240	- 0 0001	- 0 005	+ 15 419	- 0 252	- 0 01	4876
553		+ 3 6529	+ 0 0294		+ 15 403	- 0 349		
554	27022 Lalande	+ 2 9012	+ 0 0045		+ 15 133	- 0 233		
555	9 Libræ α^2	+ 3 8139	+ 0 0154	- 0 007	+ 15 176	- 0 324	+ 0 06	4895
556	27123 Lalande	+ 3 3870	+ 0 0178		+ 14 943	- 0 335		
557		+ 3 6677	+ 0 0280		+ 14 096	- 0 370		
558		+ 3 9000	+ 0 0371		+ 14 326	- 0 405		
559	43 Bootis ψ	+ 2 5333	+ 0 0010	- 0 013	+ 14 265	- 0 232	0 00	4969
560	7079 Taylor	+ 3 6975	+ 0 0273		+ 13 978	- 0 393		

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
561		8.5	1	15	3	30.06	122	18	27.9	1	0.37
562	24 Libræ ϵ^1	5.6	1	15	4	25.06	109	16	14.5	2	0.37
563	111 R P L	7.0		15	5	51.25	5	31	8.6	2	0.65
564		8.9	1	15	6	39.40	130	26	16.4	1	0.40
565	27 Libræ β	2.0		15	9	38.30	98	52	30.1	6	0.45
566		9.2	1	15	11	47.26	130	23	46.9	1	0.38
567		9.2	1	15	14	8.23	123	7	17.9	1	0.37
568	S Serpentis Var 3	10.3	1	15	15	14.94	75	11	28.9	1	0.40
569		9.0	1	15	20	19.71	130	8	21.5	1	0.38
570	32 Libræ γ^1	4.0		15	20	32.08	106	14	10.2	2	0.38
571		9.0	1	15	21	37.08	129	25	47.1	1	0.40
572	7220 Taylor	7.9	1	15	22	2.85	123	6	20.8	1	0.42
573	114 R P L	7.0		15	22	52.68	2	14	49.8	1	0.95
574	7240 Taylor	7.8	1	15	24	20.21	130	1	16.1	1	0.38
575		7.9	1	15	24	56.73	122	43	24.4	1	0.37
576	5 Cor Bor α (<i>Alpha</i>)	2.0		15	28	53.23	62	49	20.2	3	0.47
577		8.8	1	15	28	55.03	119	52 51.9		1	0.38
578		9.3	1	15	30	6.00	129	33	14.7	1	0.40
579	43 Libræ κ	5.0	1	15	34	3.55	109	13	54.7	1	0.34
580		8.3	1	15	34	46.79	129	1	16.1	1	0.38
581	XV 704 W B E	8.4	3	15	37	12.43	92	34	38.5	3	0.37
582	24 Serpentis α	2.3		15	37	31.25	83	8	27.2	6	0.13
583	28787 Lalande	8.4	2	15	42	2.89	92	48	43.2	3	0.41
584	R Coronæ Borealis Var 1	7.4	2	15	42	55.81	61	25	16.9	2	0.41
585	R Serpentis Var 2	9.4	1	15	44	22.70	74	26	27.0	1	0.37
586	46 Libræ θ	4.7		15	46	1.66	106	19	27.5	1	0.49
587		7.0	1	15	50	59.46	143	45	3.8	1	0.41
588	7 Scorpii δ	3.5		15	52	14.19	112	13	43.4	1	0.49
589	7439 Taylor	8.5	1	15	54	22.91	126	44	53.8	1	0.38
590	8 Scorpii β^1	2.0		15	57	23.52	109	25	38.6	6	0.44
591	29391 Lalande	7.0	2	16	1	45.44	102	41	13.4	4	0.15
592	116 R P L	7.0		16	4	55.39	4	18	35.9	3	0.76
593	XVI 83 W B E	8.0		16	5	59.73	102	40	55.2	1	0.41
594	1 Ophiuchi δ	8.0		16	7	10.31	93	20	20.9	1	0.54
595	29610 Lalande	8.0		16	8	6.82	105	32	24.2	1	0.41

561—Double—the second star observed

563—2213 Groombridge

568—S Serpentis Var 3—Period 361 days—Range 8th to 12.5 magnitude

573—2283 Groombridge

583—591—595—Comparison stars for Donati's Comet of 1858

584—R Coronæ Borealis Var 1—Period 323 days—Range 6th to 13th magnitude

585—R Serpentis Var 2—Period 353 days—Range, 6th to 11th magnitude

592—2423 Carrington.

— 37 34.4

— 55.0

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
561		<i>s</i>	<i>s</i>	<i>s</i>				
562	24 Libræ α^1	+ 3 6789	+ 0 0264	- 0 002	+ 13 963	- 0 392		4995
563	111 R P L	+ 3 4089	+ 0 0171		+ 13 905	- 0 364	+ 0 04	5022
564		- 6 9589	+ 1 1901		+ 13 814	+ 0 730		
565	27 Libræ β	+ 3 9008	+ 0 0349		+ 13 763	- 0 420		
566		+ 3 2257	+ 0 0117	- 0 009	+ 13 572	- 0 353	+ 0 01	5034
567		+ 3 9169	+ 0 0343		+ 13 433	- 0 431		
568	S Serpentis Var 3	+ 3 7257	+ 0 0264		+ 13 280	- 0 414		
569		+ 2 8060	+ 0 0042		+ 13 206	- 0 314		
570	32 Libræ γ^1	+ 3 9367	+ 0 0332		+ 12 869	- 0 447		
571		+ 3 3709	+ 0 0143	+ 0 002	+ 12 856	- 0 384	+ 0 05	5039
572	7220 Taylor	+ 3 9192	+ 0 0322		+ 12 782	- 0 445		
573	114 R P L	+ 3 7448	+ 0 0253		+ 12 754	- 0 427		5140
574	7240 Taylor	- 23 3003	+ 7 8117		+ 12 697	+ 2 626		
575		+ 3 9456	+ 0 0325		+ 12 598	- 0 453		
576	5 Coronæ Borealis α	+ 3 7419	+ 0 0252		+ 12 557	- 0 431		
577		+ 2 5294	+ 0 0023	+ 0 009	+ 12 286	- 0 297	+ 0 07	5143
578		+ 3 6736	+ 0 0224		+ 12 284	- 0 429		
579	43 Libræ κ	+ 3 9484	+ 0 0314		+ 12 202	- 0 468		
580		+ 3 4471	+ 0 0157	- 0 003	+ 11 925	- 0 409	+ 0 12	5176
581	XV 704 W B E	+ 3 9452	+ 0 0302		+ 11 874	- 0 471		
582	24 Serpentis α	+ 3 1211	+ 0 0089		+ 11 702	- 0 375		
583	28787 Lalande	+ 2 9413	+ 0 0062	+ 0 009	+ 11 680	- 0 354	- 0 05	5196
584	R Cor Bor Var 1	+ 3 1262	+ 0 0088		+ 11 356	- 0 381		
585	R Serpentis Var 2	+ 2 4702	+ 0 0026		+ 11 292	- 0 303		5236
586	46 Libræ θ	+ 2 7631	+ 0 0043		+ 11 187	- 0 340		
587		+ 3 3997	+ 0 0136	+ 0 009	+ 11 067	- 0 413	- 0 12	5257
588	7 Scorpii δ	+ 4 6143	+ 0 0506		+ 10 702	- 0 575		
589	7439 Taylor	+ 3 5353	+ 0 0159	- 0 001	+ 10 610	- 0 443	+ 0 01	5303
590	8 Scorpii β^1	+ 3 9226	+ 0 0761		+ 10 450	- 0 493		
591	29391 Lalande	+ 3 4777	+ 0 0142	- 0 002	+ 10 219	- 0 441	+ 0 02	5329
592	116 R P L	+ 3 8339	+ 0 0113		+ 9 894	- 0 427		
593	XVI 83 W B E	- 12 4775	+ 1 7542		+ 9 652	+ 1 591		
594	1 Ophiuchi δ	+ 3 3365	+ 0 0111		+ 9 570	- 0 431		
595	29610 Lalande	+ 3 1407	+ 0 0081	- 0 006	+ 9 480	- 0 408	+ 0 13	5414
		+ 3 4005	+ 0 0119		+ 9 406	- 0 442		

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
596	R Scorpii Var 1	10.5	4	16	9	29.32	112	36	12.5	4	0.34
597		10.0	1	16	9	39.76	112	33	22.5	1	0.54
598	20 Scorpii σ	3.3		16	12	52.00	115	15	37.9	1	0.41
599	15552 O A S	9.0	1	16	13	10.71	107	21	51.8	1	0.41
600		7.5	1	16	14	7.95	146	10	55.2	1	0.42
601	U Scorpii Var 4	9.0		16	14	37.24	107	33	6.6	2	0.39
602		9.5	1	16	15	42.36	128	7	31.7	1	0.38
603	15607 O A S	9.0	2	16	16	48.43	107	14	20.3	3	0.49
604		9.2	1	16	17	55.39	129	30	26.5	1	0.40
605	21 Scorpii α (Antares)	1.3		16	21	0.70	116	7	27.8	7	0.39
606	23 Scorpii τ	3.3		16	27	21.53	117	55	42.0	2	0.34
607	5784 Brisbane	9.5	1	16	30	49.55	150	39	19.7	1	0.55
608		7.8	1	16	34	32.73	134	6	54.5	1	0.42
609	40 Hercules 3	2.7		16	36	7.31	58	8	50.7	5	0.51
610	15952 O A S	9.2	1	16	39	18.72	111	55	24.7	1	0.38
611	8 Hercules Var 3	7.9	3	16	45	39.68	74	49	31.9	3	0.40
612		8.0	1	16	48	49.65	125	31	11.1	1	0.34
613	27 Ophiuchi κ	3.5		16	51	11.00	80	24	34.0	8	0.52
614		8.2	1	16	52	1.15	122	48	45.1	1	0.42
615	16233 O A S	8.0	1	16	53	55.13	110	23	27.8	1	0.57
616	16288 O A S	7.5	1	16	56	24.05	119	50	1.1	1	0.41
617	7926 Taylor	8.0	1	16	59	41.77	136	50	57.9	1	0.52
618	64 Hercules α Var 1	3.5		17	8	24.07	75	27	4.2	9	0.50
619		8.0	1	17	8	55.55	124	4	10.4	1	0.42
620	42 Ophiuchi θ	3.5		17	13	35.85	114	51	32.7	9	0.52
621	44 Ophiuchi b	5.0	1	17	18	0.33	114	2	44.1	2	0.42
622	45 Ophiuchi d	5.0		17	13	36.50	119	44	21.7	1	0.34
623	δ Aræ	4.0		17	18	44.27	150	33	53.2	1	0.57
624		8.8	2	17	28	21.22	125	14	35.7	2	0.57
625	55 Ophiuchi α	2.0		17	28	34.50	77	20	16.4	5	0.49
626		10.2	1	17	34	30.41	126	15	2.1	1	0.64
627	58 Ophiuchi	5.0		17	35	13.22	111	36	46.7	2	0.49
628		8.5	1	17	39	29.41	127	21	33.1	1	0.61
629		8.0	1	17	39	51.70	126	28	13.6	1	0.42
630		7.7	1	17	43	16.46	128	36	10.7	1	0.49

596 — R Scorpii Var 1 — Period 223 days — Range, 9th magnitude to invisibility
 601 — U Scorpii Var 4 — A new temporary star about 9th magnitude when brightest
 603 — Comparison star for U Scorpii Var 4 on its discovery
 611 — S Hercules Var 3 — Period 308 days — Range 6th to 12th magnitude
 618 — α Hercules Var 1 — Supposed to change irregularly from 3rd to 4th magnitude
 624—626—628—630 — Comparison stars for Donati's Comet of 1858

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A O
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
596	R Scorpii Var 1	+ 3 5652	+ 0 0147		+ 9 300	- 0 465		
597		+ 3 5643	+ 0 0147		+ 9 286	- 0 465		
598	20 Scorpii σ	+ 3 3653	+ 0 0156	- 0 003	+ 9 038	- 0 478	- 0 01	5447
599	15552 O A S	+ 3 4456	+ 0 0121		+ 9 013	- 0 453		
600		+ 4 8588	+ 0 0492		+ 8 938	- 0 638		
601	U Scorpii Var 4	+ 3 4511	+ 0 0121		+ 8 900	- 0 455		
602		+ 4 0146	+ 0 0233		+ 8 815	- 0 530		
603	15607 O A S	+ 3 4455	+ 0 0118		+ 8 728	- 0 457		
604		+ 4 0670	+ 0 0240		+ 8 640	- 0 540		
605	21 Scorpii α	+ 3 6675	+ 0 0150	- 0 001	+ 8 396	- 0 491	+ 0 03	5498
606	23 Scorpii τ	+ 3 7237	+ 0 0152	- 0 001	+ 7 888	- 0 452	+ 0 02	5539
607	5784 Brisbane	+ 5 2725	+ 0 0545		+ 7 608	- 0 715		5554
608		+ 4 2794	+ 0 0247		+ 7 306	- 0 584		
609	40 Hercules 3	+ 2 2963	+ 0 0033	- 0 034	+ 7 178	- 0 316	- 0 45	5604
610	15952 O A S	+ 3 5772	+ 0 0114		+ 6 916	- 0 493		
611	S Hercules Var 3	+ 2 7283	+ 0 0039		+ 6 392	- 0 380		
612		+ 3 9808	+ 0 0156		+ 6 129	- 0 556		
613	27 Ophiuchi κ	+ 2 8562	+ 0 0043	- 0 023	+ 5 932	- 0 401	- 0 02	5708
614		+ 3 8965	+ 0 0137		+ 5 862	- 0 547		
615	16233 O A S	+ 3 5435	+ 0 0093		+ 5 708	- 0 498		
616	16288 O A S	+ 3 8095	+ 0 0119		+ 5 494	- 0 537		
617	7926 Taylor	+ 4 4492	+ 0 0203		+ 5 217	- 0 629		
618	64 Hercules α Var 1	+ 2 7333	+ 0 0035	- 0 003	+ 4 477	- 0 391	- 0 04	5321
619		+ 3 9538	+ 0 0113		+ 4 431	- 0 565		
620	42 Ophiuchi θ	+ 3 6787	+ 0 0080	- 0 003	+ 4 033	- 0 528	- 0 02	5351
621	44 Ophiuchi δ	+ 3 6586	+ 0 0073	- 0 002	+ 3 654	- 0 527	+ 0 12	5376
622	45 Ophiuchi d	+ 3 8235	+ 0 0084	- 0 002	+ 3 602	- 0 551	+ 0 18	5381
623	δ Aræ	+ 5 4032	+ 0 0263	- 0 009	+ 3 591	- 0 777	+ 0 09	5377
624		+ 4 0076	+ 0 0079		+ 2 761	- 0 580		
625	55 Ophiuchi α	+ 2 7744	+ 0 0030	+ 0 004	+ 2 741	- 0 402	+ 0 20	5341
626		+ 4 0464	+ 0 0069		+ 2 227	- 0 587		
627	58 Ophiuchi	+ 3 5987	+ 0 0050	- 0 010	+ 2 164	- 0 523	- 0 04	5337
628		+ 4 0887	+ 0 0060		+ 1 792	- 0 595		
629		+ 4 0566	+ 0 0057		+ 1 760	- 0 591		
630		+ 4 1367	+ 0 0052		+ 1 462	- 0 603		

613—623 — Proper Motions adopted from 'Stone's Catalogue'

622 — Proper Motion in Right Ascension taken from "Greenwich Catalogue"

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
631		90	1	17	44	58.68	128	47	40.0	1	0.55
632	7504 Lacaille	70	1	17	48	28.07	129	6	46.9	1	0.44
633		87	1	17	50	20.87	130	50	17.6	1	0.49
634	4 Sagittarii δ	50	1	17	51	25.62	113	47	59.7	2	0.40
635	γ Sagittarii Var 6	55		17	56	16.20	119	34	56.7	1	0.42
636		90	2	13	2	45.18	131	44	29.4	2	0.56
637		105	1	18	4	45.08	120	43	36.2	1	0.65
638	13 Sagittarii μ^1	45		18	5	34.17	111	5	28.3	9	0.53
639		80	1	18	6	1.14	122	25	10.8	1	0.44
640	23 Ursæ Minoris δ	45		18	18	32.44	3	23	47.7	9	0.08
641	22 Sagittarii λ	40		18	19	30.91	115	29	36.7	1	0.42
642	δ^2 Telescopii	50		18	21	53.73	135	50	49.0	1	0.64
643		89	1	18	28	12.72	135	34	34.5	1	0.64
644	3 Lyræ α (Vega)	10		18	32	17.94	51	20	31.7	6	0.58
645		89	4	18	35	44.46	137	11	4.0	4	0.61
646	7872 Lacaille	63	1	18	42	15.77	136	45	6.9	1	0.65
647	7878 Lacaille	65	1	18	42	48.83	136	44	43.0	1	0.69
648	10 Lyræ β Var 1	40		18	45	1.25	56	47	40.6	4	0.59
649		80	1	18	46	49.55	137	44	59.3	1	0.70
650	13 Lyræ Var 2	43		18	51	9.74	46	13	59.4	1	0.58
651		93		18	51	58.09	140	55	55.2	1	0.64
652	39 Sagittarii σ	47		18	56	28.24	111	56	18.6	2	0.49
653	17 Aquilæ 3	33		18	59	6.69	76	20	16.0	7	0.62
654	131 R P L	65		18	59	10.45	3	28	4.4	2	0.13
655	R Aquilæ Var 2	93	1	18	59	46.23	81	58	30.2	1	0.58
656	41 Sagittarii π	45		19	1	36.77	111	14	16.6	2	0.57
657		80	1	19	3	1.64	139	22	47.1	1	0.53
658	T Sagittarii Var 3	90	3	19	8	19.76	107	12	28.8	4	0.61
659	R Sagittarii Var 1	89	2	19	9	39.23	109	32	43.8	2	0.68
660		84	2	19	9	56.43	107	9	46.0	3	0.60

631—632—636—643—645—646—647—Comparison stars for Donati's Comet of 1858

635— γ^1 Sagittarii Var 6—Period 759 days—Range 5th to 6th magnitude

637—Observed by mistake for Amphitrite

648— β Lyræ Var 1—Period 1291 days—Range 3.5 to 4.5 magnitude

650—13 Lyræ Var 2—Period 46 days—Range 4.2 to 4.6 magnitude

654—2382 Carrington

655—R Aquilæ Var 2—Period 345 days—Range 6.5 to 11th magnitude

658—T Sagittarii Var 3—Period 331 days—Range 7.5 magnitude to invisibility

659—R Sagittarii Var 1—Period 270 days—Range 7th magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
631		+ 4 1146	+ 0 0019		+ 1 314	- 0 601		
632	7504 Lacaille	+ 4 1578	+ 0 0042		+ 1 008	- 0 606		
633		+ 4 2267	+ 0 0042		+ 0 844	- 0 616		
634	4 Sagittarii b	+ 3 6614	+ 0 0028	- 0 005	+ 0 750	- 0 533	+ 0 04	6077
635	γ^1 Sagittarii Var 6	+ 3 8310	+ 0 0022		+ 0 326	- 0 559		6107
636		+ 4 2650	+ 0 0007		- 0 211	- 0 622		
637		+ 3 8666	+ 0 0007		- 0 416	- 0 564		
638	13 Sagittarii μ^1	+ 3 5875	+ 0 0009	- 0 004	- 0 487	- 0 523	+ 0 01	6168
639		+ 3 9209	+ 0 0008		- 0 527	- 0 572		
640	23 Urs Min δ	+ 19 3952	- 0 4838	+ 0 048	- 1 446	+ 2 823	- 0 03	6281
641	22 Sagittarii λ	+ 3 7073	- 0 0013	- 0 005	- 1 706	- 0 537	+ 0 24	6263
642	δ^2 Telescopii	+ 4 4428	- 0 0057		- 1 913	- 0 642		6282
643		+ 4 4259	- 0 0073		- 2 462	- 0 610		
644	3 Lyrae α	+ 2 0130	+ 0 0016	\ddagger 0 017	- 2 817	- 0 290	- 0 28	6355
645		+ 4 4976	- 0 0103		- 3 115	- 0 647		
646	7872 Lacaille	+ 4 4694	- 0 0122		- 3 677	- 0 639		
647	7878 Lacaille	+ 4 4635	- 0 0124		- 3 725	- 0 638		
648	10 Lyrae β Var 1	+ 2 2137	+ 0 0015	- 0 002	- 3 914	- 0 815	+ 0 03	6429
649		+ 4 5131	- 0 0142		- 4 069	- 0 643		
650	13 Lyrae Var 2	+ 1 8282	+ 0 0008	- 0 001	- 4 440	- 0 257	0 00	6475
651		+ 5 3223	- 0 0307		- 4 510	- 0 754		
652	39 Sagittarii o	+ 3 5944	- 0 0053	+ 0 001	- 4 892	- 0 506	+ 0 05	6507
653	17 Aquilae ζ	+ 2 7578	+ 0 0003	- 0 006	- 5 116	- 0 387	+ 0 07	6528
654	131 R P L	- 18 2584	- 1 6191		- 5 121	+ 1 627		
655	R Aquilae Var 2	+ 2 8900	- 0 0003		- 5 171	- 0 405		
656	41 Sagittarii π	+ 3 5730	- 0 0057	- 0 004	- 5 327	- 0 500	+ 0 03	6548
657		+ 4 5723	- 0 0208		- 5 146	- 0 610		
658	T Sagittarii Var 3	+ 3 1679	- 0 0051		- 5 891	- 0 480		
659	R Sagittarii Var 1	+ 3 5256	- 0 0060		- 5 918	- 0 488		
660		+ 3 4659	- 0 0055		- 6 025	- 0 479		

650 — Proper Motion in Polar Distance from Greenwich Catalogue ¹

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
661		8 0	1	19	9	59 69	146	13	2 1	1	0 52
662	25 Aquilæ ω	5 7		19	11	23 11	78	33	57 4	5	0 63
663	44 Sagittari ρ^1	4 5		19	13	43 46	108	6	7 1	2	0 50
664	45 Sagittari ρ^2	5 5		19	13	51 24	108	33	32 8	1	0 64
665	30 Aquilæ δ	3 5		19	18	35 33	87	9	20 4	4	0 61
666	8252 Taylor	6 0	1	19	22	3 94	143	23	11 1	1	0 52
667	52 Sagittari h^a	5 0		19	28	21 93	115	10	57 8	2	0 61
668		8 7		19	31	32 04	143	15	37 3	1	0 52
669	R Cygni Var 3	10 3	1	19	33	10 30	40	4	55 5	1	0 64
670	56 Sagittari f	5 3		19	38	22 08	110	5	32	1	0 42
671	50 Aquilæ γ	3 0		19	39	44 64	79	43	5 3	5	0 66
672	53 Aquilæ α (<i>Altair</i>)	1 3		19	44	5 86	81	29	28 1	2	0 67
673	χ Cygni Var 2	5 7	1	19	45	17 88	57	25	51 3	1	0 58
674	55 Aquilæ η Var 1	5 0	2	19	45	29 50	89	20	36 6	2	0 65
675	60 Aquilæ β	4 3		19	48	34 88	83	55	59 2	5	0 69
676		8 5	1	19	49	28 86	145	56	59 3	1	0 53
677		9 2	1	19	52	55 25	147	11	2 4	1	0 64
678	λ Ursæ Minoris	6 3		20	1	3 90	1	6	4 3	3	0 15
679	R Capricorni Var 1	9 9	2	20	3	37 14	104	40	13 6	2	0 71
680		8 2	1	20	4	34	147	14	43 1	1	0 53
681		9 2	1	20	7	38 36	81	22	38 0	1	0 70
682	R Sagittæ Var 1	9 7	2	20	7	40 50	73	41	10 8	2	0 67
683	5 Capricorni α^1	4 0		20	10	3 01	102	55	43 7	1	0 50
684	6 Capricorni α^2	3 5		20	10	26 98	102	58	1 1	7	0 64
685	34 Cygni Var 1	5 9	3	20	12	44 35	52	23	30 3	3	0 72
686	α Pavonis	2 0		20	14	47 13	147	10	14 4	1	0 57
687	8441 Lacaille	8 6	1	20	18	9 46	121	7	9 6	1	0 76
688	11 Capricorni ρ	5 0		20	21	2 49	103	15	50 2	12	0 67
689		8 8	1	20	27	46 43	143	16	38 9	1	0 76
690	24 Cephei (<i>Hæu</i>) Var 4	7 9	1	20	28	56 11	1	17	22 1	1	0 77

669 — R Cygni Var 3 — Period 425 days — Range 7th magnitude to invisibility
 673 — χ Cygni Var 2 — Period 406 days — Range 4th magnitude to invisibility
 674 — η Aquilæ Var 1 — Period 7 176 days — Range 3 5 to 4 7 magnitude
 679 — R Capricorni Var 1 — Period 347 days — Range 9th magnitude to invisibility
 682 — R Sagittæ Var 1 — Period 70 4 days — Range 8 3 to 10 3 magnitude
 685 — 34 Cygni Var 1 — Supposed to vary from 3rd to 6th magnitude in many years
 690 — 144 R P L = 24 Cephei (*Hæu*) Var 4 — Changes from 5th to 11th magnitude in many years

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
661		+ 4 9781	- 0 0328		- 6 030	- 0 689		
662	20 Aquilæ ω	+ 2 8165	- 0 0003	- 0 003	- 6 146	- 0 388	- 0 02	6595
663	44 Sagittarii ρ^1	+ 3 4867	- 0 0061	- 0 003	- 6 340	- 0 480	- 0 03	6619
664	45 Sagittarii ρ^2	+ 3 4979	- 0 0062	+ 0 007	- 6 351	- 0 431	+ 0 05	6620
665	30 Aquilæ δ	+ 3 0094	- 0 0018	= 0 004	- 6 744	- 0 410	- 0 10	6646
666	8950 Taylor	+ 4 7625	- 0 0327		- 7 029	- 0 647		6669
667	52 Sagittarii h	+ 3 6543	- 0 0102	= 0 002	- 7 543	- 0 490	- 0 02	6706
668		+ 3 7222	- 0 0358		- 7 798	- 0 631		
669	R Cygni Var 3	+ 1 6129	= 0 0015		- 7 931	- 0 213		
670	56 Sagittarii f	+ 3 5166	- 0 0091		- 8 346	- 0 462		6760
671	50 Aquilæ γ	+ 2 8520	- 0 0011	+ 0 001	- 8 485	- 0 373	0 00	6772
672	53 Aquilæ α	+ 2 8922	- 0 0014	+ 0 036	- 8 800	- 0 374	- 0 38	6802
673	χ Cygni Var 2	- 2 3067	+ 0 0013		- 8 895	- 0 297		
674	55 Aquilæ η Var 1	+ 3 0584	- 0 0031	- 0 001	- 8 908	- 0 396	+ 0 04	6811
675	60 Aquilæ β	+ 2 9455	- 0 0020	+ 0 002	- 9 151	- 0 373	+ 0 47	6833
676		+ 4 8290	- 0 0479		- 9 223	- 0 621		
677		+ 4 8988	- 0 0523		- 9 486	- 0 626		
678	λ Ursæ Minoris	+ 57 0008	- 29 8260	- 0 035	- 10 109	+ 7 185	- 0 01	6999
679	R Capricorni Var 1	+ 3 3724	- 0 0087		- 10 301	- 0 418		
680		+ 4 8530	- 0 0563	-	- 10 337	- 0 602		
681		+ 2 9000	- 0 0017		- 10 600	- 0 354		
682	R Sagittæ Var 1	+ 2 7400	- 0 0020		- 10 617	- 0 180		
683	5 Capricorni α^1	+ 3 3309	- 0 0084	- 0 002	- 10 779	- 0 406	0 00	6972
684	6 Capricorni α^2	+ 3 3313	- 0 0084	+ 0 001	- 10 810	- 0 403	0 00	6974
685	34 Cygni Var 1	+ 2 2101	+ 0 0019		- 10 977	- 0 265		6990
686	α Pavonis	+ 4 7960	- 0 0594	0 000	- 11 127	- 0 594	+ 0 10	7004
687	8441 Lacaille	+ 3 7369	- 0 0192		- 11 371	- 0 444		
688	11 Capricorni ρ	+ 3 4323	- 0 0115	- 0 006	- 11 573	- 0 403	+ 0 01	7042
689		+ 4 5044	- 0 0515		- 12 053	- 0 520		
690	24 Cephei (Hav) V 4	- 44 2190	- 23 9005		- 12 134	+ 5 140		7184

686 — Proper Motion adopted from *Stone's Catalogue*

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
691		90	1	20	29	40 82	113	52	11 6	1	0 76
692	143 R P L	67		20	29	50 61	5	18	12 7	1	0 76
693		81	1	20	30	47 79	149	55	34 7	1	0 77
694	S Capricorni Var 2	92	2	20	33	53 85	100	37	31 3	2	0 67
695	XX 935 WS E	90	2	20	36	44 83	73	23	17 2	2	0 65
696	50 Cygni α (Deneb)	17		20	36	45 64	45	12	29 3	1	0 57
697	S Delphini Var 2	89	1	20	36	46 06	73	24	9 9	1	0 77
698		93	1	20	38	42 7	113	3	20 6	1	0 76
699	2 Aquarii ϵ	40		20	40	15 30	99	59	12 1	1	0 63
700	8571 Lacaille	77	1	20	47	15 37	150	13	10 8	1	0 77
701	9633 Taylor	70	1	20	44	30 80	101	57	0 6	1	0 50
702	6 Aquarii μ	50		20	46	16 65	99	20	42 9	1	0 63
703		89	1	20	47	35 56	119	2	5 3	1	0 77
704	32 Vulpeculæ	55		20	48	13 71	62	27	11 9	2	0 68
705		94	1	20	53	53 28	142	50	27 0	1	0 76
706	R Vulpeculæ Var 2	100	2	20	58	23 33	66	43 54 0		2	0 69
707		98	1	20	58	30 79	118	52	55 0	1	0 77
708	9772 Taylor (1st)	75	1	21	0	23 07	145	7	32 1	1	0 70
709	57 Cygni (1st)	53		21	0	15 14	51	55	22 8	1	0 63
710	13 Aquarii ν	50		21	2	7 61	101	55	27 1	2	0 50
711	64 Cygni 3	35		21	7	6 31	60	20	1 6	6	0 71
712	8748 Lacaille	89	1	21	9	43 32	115	7	56 0	1	0 70
713	22 Aquarii β	30		21	24	20 65	96	10	20 1	11	0 71
714		90	1	21	25	45 04	140	23	42 6	1	0 70
715	23 Aquarii ξ	53		21	30	27 30	98	23	1 5	2	0 63
716	10032 Taylor	63	1	21	30	37 36	142	53	30 5	1	0 76
717	10065 Taylor	62	1	21	34	23 88	145	7	22 2	1	0 77
718	8 Pegasi ϵ	23		21	37	27 88	80	45	6 2	6	0 76
719	μ Cephei Var 1	54	3	21	39	18 86	31	50	51 5	3	0 72
720	16 Pegasi	55		21	46	49 73	64	43	7 4	8	0 76
721	10190 Taylor	60	1	21	51	1 58	116	32	12 3	1	0 78
722		97	2	21	53	45 79	150	49	33 8	2	0 74
723		93	1	21	58	6 61	136	2	51 4	1	0 70
724	34 Aquarii α	30		21	58	41 70	90	59	3 8	5	0 76
725		95	2	22	5	21 21	101	6	5 4	2	0 76

692 — 3128 Carrington

694 — S Capricorni Var 2 — Supposed to change from 9th to 11th magnitude

697 — S Delphini Var 2 — Period 276 days — Range 8th to 11th magnitude

706 — R Vulpeculæ Var 2 — Period 137 days — Range 7 5 to 13th magnitude

719 — μ Cephei Var 1 — Changes irregularly from 4th to 6th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number B A C
		Annual Recession	Secular Variation	Proper Motion	Annual Recession	Secular Variation	Proper Motion	
691		+ 1 5267	- 0 0335		- 12 187	- 0 519		
692	143 R I L	- 5 3121	- 1 2551		- 12 198	+ 0 971		
693		+ 1 8559	- 0 0742		- 12 261	- 0 561		
694	S Capricorni Var 2	+ 3 1136	- 0 0125		- 12 477	- 0 385		
695	XX 935 W XX	+ 2 7659	+ 0 0002		- 12 672	- 0 807		
696	50 Cygni α	+ 2 013	+ 0 0021	- 0 002	- 12 673	- 0 226	0 00	7171
697	S Delphini Var 2	+ 2 7632	+ 0 0002		- 12 673	- 0 307		
698		+ 4 4137	- 0 0012		- 12 661	- 0 495		
699	2 Aquarii ϵ	+ 3 2323	- 0 0081	- 0 001	- 12 906	- 0 356	+ 0 01	7196
700	871 Lacaille	+ 4 8119	- 0 0099		- 13 078	- 0 529		
701	9633 Faylor	+ 3 2619	- 0 0093		- 13 191	- 0 355		7232
702	6 Aquarii μ	+ 3 2399	- 0 0053	0 000	- 13 211	- 0 319	+ 0 04	7289
703		+ 4 7306	- 0 0711		- 13 393	- 0 507		
704	32 Vulpeculo	+ 2 5551	+ 0 0126	- 0 002	- 13 467	- 0 279	0 00	7256
705		+ 4 3593	- 0 0553		- 13 798	- 0 455		
706	32 Vulpeculo Var 2	+ 2 6621	+ 0 0022		- 14 080	- 0 271		
707		+ 1 615	- 0 0757		- 14 085	- 0 176		
708	9772 Taylor (1st)	+ 1 1263	- 0 0621		- 14 205	- 0 449		
709	61 Cygni (1st)	+ 2 3337	+ 0 0014	+ 0 339	- 14 232	- 0 233	- 3 22	7386
710	13 Aquarii ν	+ 3 2699	- 0 0038	+ 0 001	- 14 312	- 0 328	+ 0 01	7344
711	61 Cygni	+ 2 5501	+ 0 0055	- 0 003	- 14 614	- 0 218	+ 0 07	7368
712	8718 Lacaille	+ 1 3701	- 0 0634		- 14 770	- 0 455		
713	22 Aquarii β	+ 3 1625	- 0 0071	- 0 001	- 15 605	- 0 282	0 00	7478
714		+ 1 0793	- 0 0516		- 15 681	- 0 363		
715	23 Aquarii ζ	+ 3 1930	- 0 0053	+ 0 001	- 15 931	- 0 276	+ 0 04	7514
716	10032 Faylor	+ 4 1474	- 0 0551		- 15 911	- 0 350		7513
717	10065 Taylor	+ 1 2103	- 0 0619		- 16 112	- 0 357		7510
718	8 Pegasi ϵ	+ 2 9452	- 0 0105	+ 0 003	- 16 300	- 0 212	0 00	7561
719	μ Cephei Var 1	+ 1 8323	+ 0 0039		- 16 394	- 0 117		7582
720	16 Pegasi	+ 2 7251	+ 0 0052	+ 0 001	- 16 764	- 0 210	+ 0 01	7627
721	10190 Taylor	+ 4 1513	- 0 0695		- 16 963	- 0 316		7645
722		+ 4 3254	- 0 0872		- 17 089	- 0 328		
723		+ 3 7752	- 0 0130		- 17 267	- 0 272		
724	34 Aquarii α	+ 3 0836	- 0 0041	- 0 003	- 17 311	- 0 219	+ 0 02	7688
725		+ 3 1979	- 0 0092		- 17 598	- 0 216		

Mean Positions of Stars for 1863 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observation	Fraction of Year
				h	m	s					
726		7.9	1	22	9	22.1	98	27	21.1	1	0.78
727		9.0	1	22	9	35.6	146	27	35.2	1	0.76
728	43 Aquarii θ	4.5		22	9	36.11	96	27	51.3	1	0.65
729	48 Aquarii γ	3.7		22	14	34.67	92	1	36.0	2	0.62
730		8.8	1	22	15	17.87	82	47	40.5	1	0.79
731		9.6	1	22	18	40.99	140	46	3.8	1	0.70
732	100 R P L	5.0		22	23	42.20	1	35	0.1	6	0.41
733	27 Cephei δ Var 2	5.6	4	22	24	5.38	32	17	9.6	1	0.70
734		9.8	1	22	24	36.10	146	50	51.5	1	0.76
735		8.0	1	22	25	48.37	141	30	31.5	1	0.76
736	62 Aquarii η	3.7		22	28	18.89	90	19	22.6	0	0.76
737	10477 Taylor	6.0	1	22	32	3.46	148	5	5.9	1	0.77
738	42 Pegasi ζ	3.3		22	34	37.07	79	52	59.1	4	0.70
739		6.6	1	22	37	35.40	145	46	57.5	1	0.76
740	XXII 844 W B E	8.9	1	22	40	31.06	87	48	59.4	1	0.73
741		9.1	2	22	40	48.46	142	38	20.6	2	0.82
742		9.7	2	22	44	40.08	145	33	19.0	2	0.79
743		7.9	2	22	44	46.65	148	34	51.0	2	0.81
744	S Aquarii Var 2	8.8	2	22	49	45.58	111	4	26.7	2	0.81
745	21 Pis Aus α (Tomalhavut)	1.3		22	50	4.89	120	20	51.7	8	0.81
746		9.2	1	22	51	22.53	151	33	39.0	1	0.77
747		9.3	1	22	51	47.53	85	26	50.2	1	0.78
748	9353 Lacaille	6.0	1	22	56	32.24	144	41	54.1	1	0.69
749		9.0	1	22	57	7.80	149	38	17.9	1	0.85
750	53 Pegasi β Var 1 (Scheat)	2.0		22	57	8.24	62	30	36.2	1	0.70
751	54 Pegasi α (Matalab)	2.0		22	57	56.24	75	31	54.2	4	0.81
752		9.8	1	22	59	16.44	150	22	26.9	1	0.77
753	9377 Lacaille	6.5	2	23	2	8.71	151	18	22.3	2	0.82
754	90 Aquarii ϕ	4.7		23	7	13.63	96	47	14.0	1	0.66
755	9405 Lacaille	8.2	4	23	7	22.77	150	26	25.0	4	0.81
756	6 Piscium γ	4.3		23	10	3.75	87	27	57.7	8	0.82
757		9.8	1	23	11	2.08	151	16	3.7	1	0.77
758		8.6	1	23	11	15.10	136	54	41.3	1	0.87
759		8.5	1	23	12	4.13	137	4	14.6	1	0.69
760	96 Aquarii	5.5	1	23	12	17.65	95	52	21.1	1	0.63

732 — 3820 Groombridge

733 — δ Cephei Var 2 — Period 5366 days — Range 3.7 to 4.8 magnitude

744 — S Aquarii Var 2 — Period 279 days — Range 8th magnitude to invisibility

750 — β Pegasi Var 1 — Period about 6 weeks — Range 2.0 to 2.5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
726		+ 3 1637	- 0 0077		- 17 750	- 0 207		
727		+ 3 0088	- 0 0055		- 17 751	- 0 264		
728	48 Aquarii θ	+ 3 1641	- 0 0075	+ 0 006	- 17 773	- 0 205	+ 0 03	7773
729	48 Aquarii γ	+ 3 0935	- 0 0042	+ 0 007	- 17 971	- 0 191	- 0 02	7795
730		+ 2 9975	0 0000		- 17 998	- 0 185		
731		+ 3 7720	- 0 0516		- 18 131	- 0 227		
732	150 R P L	- 3 7312	- 1 1665	+ 0 048	- 18 810	+ 0 230	- 0 05	7851
733	27 Cephei δ Var 2	+ 2 2122	+ 0 0165	+ 0 002	- 18 825	- 0 123	+ 0 02	7848
734		+ 3 8997	- 0 0676		- 18 843	- 0 221		
735		+ 3 7439	- 0 0527		- 18 885	- 0 210		
736	62 Aquarii η	+ 3 0795	- 0 0031	+ 0 003	- 18 472	- 0 166	+ 0 06	7868
737	10477 Taylor	+ 3 8773	- 0 0708		- 18 597	- 0 203		7889
738	42 Pegasi 3	+ 2 9851	+ 0 0023	+ 0 001	- 18 680	- 0 149	0 00	7908
739		+ 3 7639	- 0 0622		- 18 772	- 0 185		
740	XXII 844 W B E	+ 3 0547	- 0 0012		- 18 861	- 0 143		
741		+ 3 6652	- 0 0534		- 18 870	- 0 162		
742		+ 3 7013	- 0 0604		- 18 981	- 0 166		
743		+ 3 7776	- 0 0697		- 18 985	- 0 169		
744	S Aquarii Var 2	+ 3 2275	- 0 0140		- 19 121	- 0 184		
745	24 Piscis Aust α	+ 3 3071	- 0 0210	+ 0 022	- 19 180	- 0 135	+ 0 18	7992
746		+ 3 8003	- 0 0796		- 19 162	- 0 155		
747		+ 3 0409	+ 0 0005		- 19 174	- 0 122		
748	9353 Lacaille	+ 3 5883	- 0 0559		- 19 291	- 0 135		8029
749		+ 3 6903	- 0 0705		- 19 305	- 0 138		
750	53 Pegasi β Var 1	+ 2 8849	+ 0 0117	+ 0 014	- 19 306	- 0 106	- 0 15	8032
751	54 Pegasi α	+ 2 9797	+ 0 0056	+ 0 003	- 19 324	- 0 107	+ 0 02	8034
752		+ 3 6378	- 0 0728		- 19 355	- 0 133		
753	9377 Lacaille	+ 3 6822	- 0 0753		- 19 419	- 0 126		8061
754	90 Aquarii ϕ	+ 3 1084	- 0 0045	+ 0 001	- 19 525	- 0 096	+ 0 19	8085
755	9405 Lacaille	+ 3 6086	- 0 0703		- 19 529	- 0 111		8086
756	6 Piscium γ	+ 3 0591	+ 0 0005	+ 0 047	- 19 582	- 0 087	+ 0 01	8105
757		+ 3 5392	- 0 0721		- 19 599	- 0 103		
758		+ 3 3738	- 0 0382		- 19 603	- 0 098		
759		+ 3 3705	- 0 0384		- 19 618	- 0 094		
760	69 Aquarii	+ 3 1005	- 0 0038	+ 0 011	- 19 622	- 0 085	+ 0 01	8119

750—Proper Motions adopted from "Greenwich Catalogue"

Mean Positions of Stars for 1863¹ January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>	<i>°</i>				
761	4040 Groombridge	7.0	1	23	12	55.84	7	3	35.0	1	0.82
762	10748 Taylor	5.9	3	23	17	29.43	147	36	3.1	3	0.83
763		9.9	1	23	19	38.74	151	38	24.2	1	0.77
764	8 Piscium κ	5.0		23	19	54.55	89	29	39.4	12	0.80
765		9.3	2	23	20	59.84	137	28	4.5	2	0.76
766		8.3	1	23	23	33.34	148	57	55.0	1	0.85
767	10804 Taylor	6.4	3	23	27	26.49	147	34	53.7	3	0.81
768		8.8	1	23	27	42.50	148	15	5.2	1	0.76
769	158 R P L	5.7		23	27	40.86	3	26	54.5	11	0.46
770		9.5	2	23	29	51.20	137	20	25.6	2	0.76
771		8.4	1	23	30	21.40	148	57	0.4	1	0.85
772	17 Piscium ι	4.3		23	32	54.27	85	6	58.2	11	0.80
773		9.2	1	23	34	17.16	147	27	44.8	1	0.84
774		9.2	1	23	36	33.67	106	2	41.7	1	0.74
775	δ Sculptoris	4.5		23	41	47.09	118	53	16.5	13	0.81
776		8.6	2	23	42	0.27	150	50	18.8	2	0.83
777	9638 Lacaille	7.8	2	23	46	53.37	150	18	19.5	2	0.81
778	R Cassiopeæ Var 3	9.5	1	23	51	27.44	89	22	30.2	1	0.74
779		9.4	1	23	51	55.83	143	16	18.8	1	0.87
780	23 Piscium ω	4.0		23	52	16.60	83	53	43.1	5	0.80
781	10990 Taylor	9.2	2	23	56	50.88	148	35	30.0	2	0.82
782	10994 Taylor	8.0	1	23	57	44.29	147	36	20.6	1	0.77

769—4101 Groombridge

778—R Cassiopeæ Var 3—Period 426 days—Range, 5th magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
761	4040 Groombridge	+ 2 1835	+ 0 0392		- 19 634	- 0 057		8122
762	10743 Taylor	+ 3 4605	- 0 0582		- 19 711	- 0 085		8157
763		+ 3 5059	- 0 0700		- 19 745	- 0 081		
764	8 Piscium κ	+ 3 0699	0 0000	+ 0 005	- 19 750	- 0 069	+ 0 12	8169
765		+ 3 3189	- 0 0375		- 19 765	- 0 074		
766		+ 3 4238	- 0 0605		- 19 802	- 0 070		
767	10804 Taylor	+ 3 3701	- 0 0555		- 19 853	- 0 060		8208
768		+ 3 3755	- 0 0572		- 19 856	- 0 060		
769	158 R P L	- 0 0318	- 0 4961	+ 0 084	- 19 858	+ 0 010	- 0 01	8213
770		+ 3 2624	- 0 0360		- 19 882	- 0 053		
771		+ 3 3585	- 0 0583		- 19 887	- 0 054		
772	17 Piscium ι	+ 3 0584	+ 0 0030	+ 0 025	- 19 916	- 0 042	+ 0 45	8233
773		+ 3 3067	- 0 0532		- 19 929	- 0 044		
774		+ 3 1110	- 0 0081		- 19 953	- 0 037		
775	3 Sculptoris	+ 3 1305	- 0 0161	+ 0 009	- 19 992	- 0 026	+ 0 10	8275
776		+ 3 2600	- 0 0589		- 19 993	- 0 028		
777	9638 Lacaille	+ 3 2052	- 0 0557		- 20 023	- 0 017		
778	R Cassiopeæ Var 3	+ 3 0114	+ 0 0364		- 20 041	- 0 007		
779		+ 3 1352	- 0 0402		- 20 042	- 0 007		
780	28 Piscium α	+ 3 0671	+ 0 0047	+ 0 010	- 20 044	- 0 005	+ 0 13	8331
781	10990 Taylor	+ 3 1022	- 0 0432		- 20 053	+ 0 003		
782	10994 Taylor	+ 3 0930	- 0 0495		- 20 054	+ 0 005		

775 — Proper motions adopted from 'Stone's Catalogue'

SEPARATE RESULTS
OF
OBSERVATIONS
MADE WITH THE
MADRAS MERIDIAN CIRCLE
IN THE YEAR
1864.

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
1	11010 Taylor	Nov 10	M	0	0	28 80	5	147	35	39 1	7 9
2		Nov 8	M	0	0	42 06		151	23	53 2	9 1
3	21 Andromedæ α	Oct 20	R	0	1	21 80		61	39	40 3	
		22	R		1	21 62			39	39 9	
		24	R		1	21 69			39	40 7	
		25	R		1	21 47			39	38 8	
		26	R		1	21 72			39	39 7	
		28	R		1	21 67			39	38 9	
		Nov 7	M		1	21 73			39	39 8	
		Dec 1	M		1	21 72			39	40 4	
		2	M		1	21 72			39	41 1	
4	9789 Lacaille	Sep 28	R	0	2	3 98		130	29	34 8	7 5
		Oct 5	M		2	4 07			29	37 8	7 7
5	7 Taylor	Sep 15	M	0	2	57 47		93	19	4 6	7 1
6	3 Lacaille	Nov 3	M	0	6	6 66		148	40	15 3	6 6
7	88 Pegasi γ	Oct 11	M	0	6	14 00		75	34	23 8	
		15	M		6	14 06			34	24 2	
		20	R		6	14 07			34	23 1	
		22	R		6	14 22	5		34	23 0	
		24	R		6	14 12			34	24 0	
		25	R		6	14 17			34	23 8	
		26	R		6	13 98			34	23 1	
		28	R		6	14 08			34	22 7	
		Dec 2	M		6	14 03			34	24 0	
8		Sep 27	R	0	6	32 31	5	131	7	0 9	9 2
		Oct 7	M		6	32 53			7	1 4	9 7
9		Nov 5	M	0	9	22 56	5	149	31	50 5	8 7
10		Nov 8	M	0	9	33 24		153	55	6 7	9 0
		11	M		9	33 23	3		55	7 5	9 0

32 34
32 60

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				h	m	s		°			
11	41 Lacaille	Sep 28	R	0	12	33 47	3	130	52	42	80
		Oct 28	R		12	33 69			52	18	82
12		Sep 27	R	0	12	47 24		150	26	39 0	87
		Nov 2	M		12	47 13			26	38 3	86
		12	M		12	47 51			26	39 0	89
13	41 Piscum d	Sep 15	M	0	13	36 04		82	33	54 6	56
		16	R		13	36 02			33	55 3	56
14		Nov 8	M	0	18	31 22		152	57	38 5	90
15	81 Lacaille	Sep 29	R	0	18	38 22		160	0	39 9	72
16	12 Ceti	Oct 24	R	0	23	5 83		94	42	34 7	
		27	R		23	5 91			42	34 1	
		Nov 5	M		23	5 79			42	34 8	
		7	M		23	5 86			42	34 0	
		11	M		23	5 87			42	35 0	
		12	M		23	5 90			42	35 8	
		Dec 2	M		23	5 88			42	35 4	
		3	M		23	5 86			42	34 8	
		5	M		23	5 88			42	33 9	
17	T Piscum Var 3	Oct 28	R	0	24	57 60	3	76	9	04	105
18		Aug 19	R	0	27	7 96		76	14	77	80
		Sep 27	R		27	7 88			14	79	85
		Oct 15	M		27	7 74			14	87	80
19	132 Lacaille	Nov 8	M	0	27	13 38	6	151	53	55 9	90
20	970 Lalande	Dec 6	M	0	31	4 54	5	80	55	94	77
21	1010 Lalande	Oct 24	R	0	32	15 52		82	32	27 6	95
		Nov 2	M		32	15 49			32	27 2	91
22	18 Cassiopeæ a Var 2	Dec 8	M	0	32	⁴³ 48 14		34	12	34 7	46 43

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
23	16 Ceti β	Oct 22	R	0	36	45 69		108	44	13	
		24	R		36	45 64			44	20	
		Nov 3	M		36	45 64			44	07	
		7	M		36	45 77			44	00	
		11	M		36	45 59			44	12	
		Dec 2	M		36	45 64			44	23	
		3	M		36	45 61			44	17	
		5	M		36	45 69			44	11	
		6	M		36	45 68			44	15	
		7	M		36	45 59			44	12	
		8	M		36	45 62			44	20	
24	0 628 W B E	Nov 5	M	0	36	54 12	4	93	49	29 9	
25		Nov 8	M	0	39	53 91	5	150	44	54 3	8 9
		12	M		39	54 09			44	55 0	9 1
26	58 Piscum	Oct 13	M	0	39	^{6 02} 55 34		78	46	8 8	5 0
27	63 Piscum δ	Aug 19	R	0	41	37 83	4	83	9	21 1	
		Oct 13	M		41	37 56	3		9	22 4	
		14	M		41	37 62			9	21 1	
28	258 Lacaille	Nov 8	M	0	47	57 75	3	153	36	39 3	6 0
29		Dec 9	M	0	48	55 25	5	153	49	48 6	9 6
30	2 Ursæ Minoris <i>s p</i>	May 12	M	0	50	44 24	2	4	28	28 9	
		Nov 2	M		50	44 40	3		28	29 9	
31	0 897 W B E	Nov 7	M	0	52	12 41		92	49	54 4	9 3
		Dec 5	M		52	12 35	6		49	54 9	9 0
		, 6	M		52	12 25	8		49	56 1	9 2
32	271 Lacaille	Nov 12	M	0	52	42 54		151	25	58 2	7 5
33	14 R P L <i>s p</i>	May 21	M	0	53	^{59 12} 58 25	2	3	34	53 8	
34	70 Piscum	Dec 1	M	0	55	2 48		82	47	38 2	6 9

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
35	71 Piscium ϵ	Jan 1	M	0	55	53 10		82	50	35 7	
		2	M		55	53 16			50	34 5	
		4	M		55	53 23			50	35 5	
		Sep 16	R		55	53 34			50	35 1	
		Nov 10	M		55	53 09			50	35 5	
		11	M		55	53 24			50	35 6	
		29	R		55	53 20			50	35 8	
		Dec 8	M		55	53 33	2		50	34 7	
36	29 Ceti	Nov 5	M	1	0	58 99		88	43	8 5	6 7
37	33 Ceti	Jan 1	M	1	3	33 49		88	16	45 8	
		2	M		3	33 63			16	46 5	
		4	M		3	33 55			16	45 9	
(147) 38	86 Piscium 3 \star	Sep 16	R	1	6	37 49		83	8	35 6	
		Nov 11	M		6	37 67			8	41 9	
39	1 Urs Min α	<i>s p</i> Apl 2	M	1	9	18 81	2	2	24	55 5	
		<i>s p</i> 6	M		9	17 85	3		24	56 0	
		<i>s p</i> 16	R		9	18 06	3		24	56 3	
		<i>s p</i> , 26	R		9	19 09	3		24	57 4	
		<i>s p</i> May 5	R		9	18 13	3		24	56 4	
		<i>s p</i> 28	R		9	18 54	3		24	57 5	
		Oct 27	R		9	17 96	3		24	56 9	
		Nov 22	R		9	17 88	3		24	57 0	
40		Oct 27	R	1	17	0 20	3	96	31	27 6	8 0
		Dec 3	M		17	0 17			31	24 9	8 2
41	45 Ceti θ^1	Jan 1	M	1	17	13 48		98	53	11 2	
		2	M		17	13 53			53	11 1	
		4	M		17	13 48			53	11 1	
		Nov 12	M		17	13 55			53	11 6	
		29	R		17	13 57			53	12 3	
		Dec 6	M		17	13 43			53	12 1	
42		Dec 5	M	1	18	53 11		151	20	23 0	7 6

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
43		Nov 2	M	1	23	28 19		87	43	58 8	8 2
44	99 Piscium η	Jan 1	M	1	24	12 69		75	21	24 9	
		2	M	*	24	12 59			21	24 6	
		4	M		24	12 53			21	24 6	
		Oct 14	M		24	12 66			21	24 8	
		, 15	M		24	12 47			21	25 2	
		Nov 22	R		24	12 55			21	24 8	
		29	R		24	12 55			21	25 0	
		Dec 1	M		24	12 57			21	24 3	
		8	M		24	12 41			21	25 5	
		9	M		24	12 49			21	25 4	
45		Nov 12	M	1	25	44 66		150	21	41 4	8 6
46	514 Taylor	Dec 2	M	1	28	38 66		73	15	51 2	6 0
		8	M		28	38 51			15	51 3	6 1
47		Dec 5	M	1	29	1 31		150	42	35 1	9 0
48		Nov 23	R	1	31	23 00		180	52	13 2	8 0
49	α Eridani (<i>Achernar</i>)	Nov 22	R	1	32	38 91		147	55	45 7	
		29	R		32	38 93			55	45 2	
		Dec 20	R		32	38 91			55	45 8	
50	106 Piscium ν	Oct 17	R	1	34	21 35		85	12	7 7	
		Nov 7	M		34	21 16			12	7 4	
		, 24	R		34	21 32			12	7 0	
		Dec 1	M		34	21 29			12	8 1	
		3	M		34	21 29			12	7 6	
		6	M		34	21 30			12	7 9	
51	508 Lacaille	Nov 5	M	1	35	42 98		151	41	18 8	7 7
52	110 Piscium σ	Oct 14	M	1	38	12 88	5	81	31	42 7	
		15	M		38	12 70			31	42 9	
		Dec 8	M		38	12 74			31	42 7	
		9	M		38	12 79			31	42 4	

17 8

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>	<i>'</i>		
53		Dec 10	M	1	38	33 55	5	152	2	52 8	91
54	516 Lacaille	Nov 11	M	1	39	58 43		151	42	93	70
		23	R		39	58 35			42	90	70
55		Nov 7	M	1	46	9 24 ³⁴		148	57	57 1	94
56	V Piscium Var. 5	Nov 29	R	1	47	7 59	8	81	53	94	100
57	6 Arietis β	Oct 17	R	1	47	7 86		69	51	31 8	
		Nov 14	M		47	7 90			51	31 8	
		22	R		47	7 93			51	32 0	
		24	R		47	7 85			51	31 5	
		25	R		47	7 92			51	31 2	
		Dec 1	M		47	7 87			51	32 2	
		3	M		47	7 95			51	31 5	
58		Nov 5	M	1	48	32 60		150	5	13 2	93
		Dec 5	M		48	33 01	5		5	13 7	93
59	582 Lacaille	Dec 10	M	1	50	54 77		145	44	21 5	81
60	593 Lacaille	Jan 4	M	1	52	2 53	5	149	8	13 6	
61		Oct 22	R	1	54	52 42		180	55	42 3	90
		Nov 24	R		54	52 62			55	41 8	90
62	673 Taylor	Nov 12	M	1	56	15 31		72	24	8 3	60
63		Nov 5	M	1	59	23 41		150	2	30 2	93
		Dec 5	M		59	23 62			2	32 7	93
64	13 Arietis α	Oct 17	R	1	59	30 68		67	10	58 6	
		Nov 14	M		59	30 64			10	58 5	
		22	R		59	30 70			10	58 3	
		23	R		59	30 63			10	58 5	
		24	R		59	30 65			10	57 7	
		Dec 6	M		59	30 72			10	58 0	
		10	M		59	30 67			10	58 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
65	697 Taylor	Jan	4	M	2	1	45 88		145	43	57 4	6 7
66		Oct	22	R	2	1	54 99		130	2	27 4	9 3
			26	R		1	55 02			2	29 2	9 3
67	677 Lacaille	Oct	24	R	2	6	55 77		149	47	35 4	8 0
68		Oct	26	R	2	6	58 76		148	39	29 4	9 7
69	754 Taylor	Jan	4	M	2	9	11 61		147	58	52 3	8 8
		Nov	29	R		9	11 89	5		58	55 1	9 0
70	67 Ceti	Nov	11	M	2	10	12 07		97	8	3 2	
			23	R		10	12 05			8	3 3	
			24	R		10	12 12			8	2 5	
			25	R		10	12 00			8	1 4	
		Dec	5	M		10	12 03			8	3 4	
			9	M		10	12 04			8	3 5	
			20	R		10	12 07			8	2 2	
71	68 Ceti o Var 1 (Mira)	Jan	6	M	2	12	28 65		98	35	54 9	6 5
		Oct	22	R		12	28 67			35	51 5	8 2
			24	R		12	28 71			35	50 2	8 0
72		Dec	6	M	2	16	23 72		151	18	24 7	8 0
73	818 Taylor	Jan	4	M	2	19	8 13		147	25	59 7	7 5
74		Jan	7	M	2	20	10 55	4	146	32	42 3	
		Nov	29	R		20	10 81			32	44 0	
75	73 Ceti 1 ^a	Jan	5	M	2	20	55 85		82	9	5 3	
			6	M		20	55 79			9	4 9	
		Nov	14	M		20	55 91			9	6 3	
			22	R		20	55 80	4		9	6 0	
			25	R		20	55 83			9	5 2	
		Dec	9	M		20	55 80			9	5 6	
			10	M		20	55 89			9	5 0	
			17	R		20	55 77			9	5 7	
			20	R		20	55 81			9	4 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
76	λ Horologii	Dec 5	M	<i>h</i> 2	<i>m</i> 21	<i>s</i> 6 12		150	55	20 6	6 0
77		Dec 13	M	2	24	27 94		147	2	45 3	8 2
78	782 Lacaille	Jan 11	M	2	26	12 97		148	24	54 3	7 8
		Nov 11	M		26	13 41	5		24	55 7	7 0
79		Nov 29	R	2	29	10 94	5	147	37	29 6	9 5
80	31 Arietis	Dec 9	M	2	29	12 91		78	8	40 2	
		, 10	M		29	12 97	5		8	39 8	5 5
81		Jan 4	M	2	30	45 22		147	34	54 3	9 8
		Nov 24	R		30	45 57			34	54 6	9 7
82		Dec 5	M	2	31	15 88	6	151	39	24 0	9 6
83	II 556 W B N	Nov 23	R	2	33	10 17		74	53	59 9	8 5
		29	R		33	10 25	5		54	0 0	9 0
84		Nov 10	M	2	33	59 16		74	56	35 3	8 7
85	849 Lacaille (1st)	Jan 5	M	2	36	0 55		150	9	10 0	7 9
86	86 Ceti γ	Jan 7	M	2	36	15 50		87	20	22 1	
		11	M		36	15 49			20	22 6	
		Nov 8	M		36	15 30			20	22 1	
		14	M		36	15 33			20	22 6	
		25	R		36	15 31			20	22 3	
		Dec 12	M		36	15 22			20	22 7	
		, 13	M		36	15 31			20	22 9	
		17	R		36	15 36			20	23 6	
87	38 Arietis	Oct 15	M	2	37	33 03		78	7	44 1	5 1
		Dec 9	M		37	33 23			7	44 6	
		10	M		37	33 17			7	43 2	5 0
88	II 676 W B N	Nov 4	M	2	40	8 21		75	20	24 7	7 9
		23	R		40	8 17	5		20	24 2	8 0
		Dec 23	R		40	8 03			20	23 8	8 3

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
89	42 Arietis π	Jan 6	M	2	41	42.75		73	6	14.3	5.2
		Oct 15	M		41	42.41	4		6	17.1	5.6
90		Jan 4	M	2	43	17.76	4	148	0	37.3	8.7
		15	M		43	18.04	5		0	37.0	8.9
91	II 733 W B E	Nov 23	R	2	43	19.18	5	76	2	13.3	9.5
		24	R		43	19.12			2	12.7	9.5
92		Jan 12	M	2	45	15.73	3	76	27	53.8	9.2
93	969 Taylor	Nov 10	M	2	45	37.51		74	4	28.1	7.4
		Dec 2	M		45	37.46			4	28.4	7.5
94	87 Rumker	Dec 5	M	2	46	0.94	5	153	22	19.5	5.9
95	5380 Lalande	Nov 23	R	2	47	42.04		74	14	41.8	8.0
		24	R		47	42.00			14	41.0	8.2
96	941 Lacaille	Jan 7	M	2	50	26.42	5	146	26	44	6.3
		11	M		50	26.47	5		26	6.0	6.7
97		Jan 5	M	2	52	21.64		150	17	8.5	8.6
98		Dec 13	M	2	53	15.55	4	146	44	28.5	8.4
99	969 Lacaille	Jan 15	M	2	54	53.50		144	13	57.3	7.9
100	92 Ceti α	Jan 7	M	2	55	10.37		86	26	46.3	
		Nov 21	R		55	10.32			26	47.0	
		23	R		55	10.38			26	46.5	
		Dec 7	M		55	10.17			26	46.2	
		9	M		55	10.33			26	46.3	
		12	M		55	10.35			26	46.6	
		23	R		55	10.29			26	47.0	
101	ρ Persei Var 2	Jan 6	M	2	56	27.34	4	51	41	23.1	
102	1037 Taylor	Jan 11	M	2	56	53.97	5	150	21	35.5	9.3
		12	M		56	54.23			21	33.8	9.1

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1854

Separate Results of Madras Meridian Circle Observations in 1864

1993
1969

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>	<i>'</i>	<i>''</i>	
103	β Persei Var 1	Nov 4	M	2	59	29.89	5	49	34	17.7	
		29	R		59	29.41			34	17.0	
104	1047 Taylor	Jan 18	M	2	59	51.39	5	151	19	52.9	6.8
		Dec 23	R		59	51.61	3		19	53.5	7.8
105	1052 Taylor	Jan 16	M	3	0	25.00	5	150	16	1.7	6.0
106	33 R P L <i>p</i>	June 4	R	3	0	42.11	5	5	34	52.8	
107	57 Arctus δ	Nov 21	R	3	3	51.30	5	70	47	25.0	
		23	R		3	51.33			47	26.3	
		29	R		3	51.32	4		47	26.3	
		30	R		3	51.35			47	26.5	
		Dec 5	M		3	51.35			47	25.2	
		7	M		3	51.45			47	26.8	
		10	M		3	51.35			47	25.9	
		12	M		3	51.35			47	26.5	
		21	R		3	51.26			47	25.9	
108	1007 Lacaille	Jan 19	M	3	4	42.73		152	14	28.7	7.0
109	1092 Taylor	Jan 11	M	3	7	15.46	6	148	19	28.9	7.1
		15	M		7	15.63			19	28.1	6.7
		Dec 6	M		7	15.60			19	31.1	7.0
110		Dec 13	M	3	7	16.15	3	145	40	32.5	9.0
111		Jan 12	M	3	12	41.14	5	180	50	15.5	8.6
112	38 Persei α	Nov 24	R	3	14	37.52		40	37	34.4	
		25	R		14	37.61			37	35.3	
		Dec 16	R		14	37.59			37	33.8	
113		Jan 16	M	3	14	51.02	5	150	6	18.7	9.0
114	3 ^a Retrouh	Jan 19	M	3	15	15.79	5	153	1	37.7	5.9
		28	R		15	15.62	4		1	38.2	6.3
115		Jan 5	M	3	20	18.17		149	18	56.8	7.8

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
116		Jan 15	M	3	20	34.44	5	149	28	28.7	7.3
		18	M		20	34.25			28	30.8	7.4
117		Jan 7	M	3	22	0.08		88	12	26.3	7.5
118	34 R P L	Jan 4	M	3	22	14.89	3	3	47	26.9	
		Nov 22	R		22	16.53	3		47	25.1	
		Dec 20	R		22	17.31	3		47	29.5	
119	1143 Lacaille	Jan 19	M	3	27	0.48	5	153	25	6.9	5.7
		21	M		27	0.86	3		25	6.0	
[27 56] 120	1150 Lacaille	Dec 14	M	3	28	26.56	3	152	28	17.6	7.7
121	1159 Lacaille	Jan 20	M	3	30	16.54		151	28	33.8	6.7
		28	R		30	16.11			28	31.9	7.0
122	1192 Lacaille	Jan 11	M	3	34	58.48		147	43	46.9	8.5
123	1193 Lacaille	Jan 5	M	3	35	15.49		146	35	14.0	8.1
124	1200 Lacaille	Jan 7	M	3	36	24.51	5	146	40	31.5	
		28	R		36	24.26			40	30.2	6.9
125	17 Tauri (<i>Electra</i>)	Jan 6	M	3	37	48.28		66	18	59.2	
126	25 Tauri η (<i>Aleyone</i>)	Jan 18	M	3	39	24.34		66	19	7.2	
		, 19	M		39	24.26			19	7.9	
		Oct 17	R		39	24.25			19	8.0	
		Nov 16	R		39	24.27			19	7.2	
		21	R		39	24.17			19	7.4	
		30	R		39	24.22			19	7.7	
		Dec 10	M		39	24.27			19	7.1	
		16	R		39	24.26			19	7.4	
		21	R		39	24.23			19	6.0	
		22	R		39	24.17			19	7.6	
		23	R		39	24.09			19	6.9	
Taylor 127	A. B. B. B. B.	Jan 20	M	3	42	30.23	5	155	14	9.2	5.7
		, 27	R		42	30.06			14	7.5	5.5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
128		Nov 24	R	3	45	11 82		76	27	48 7	90
129		Jan 5	M	3	46	32 44		146	33	38 2	88
		11	M		46	32 32			33	39 9	87
130		Jan 7	M	3	48	3 85	5	150	50	17 8	80
		12	M		48	3 62			50	15 8	86
181	84 Eridani γ^1	Jan 6	M	3	51	41 11		108	53	52 9	
		15	M		51	41 11			53	52 0	
		Nov 16	R		51	41 07			53	52 4	
		21	R		51	41 18			53	52 6	
		30	R		51	41 07	5		53	52 7	
		Dec 21	R		51	41 18	5		53	52 9	
		22	R		51	41 11			53	52 4	
		23	R		51	41 18	5		53	53 0	
182	λ Tauri Var 1	Jan 29	R	3	53	8 92		77	53	48 7	63
133		Jan 5	M	3	53	40 29	5	148	8	28 6	79
184	1827 Lacaille	Jan 22	M	3	54	18 80		153	51	27 3	58
		, 23	M		54	18 90	3		51	28 3	60
		Dec 2	M		54	18 86			51	29 6	60
185	86 Tauri	Dec 5	M	3	56	18 88		66	16	18 6	65
		, 6	M		56	18 77			16	19 0	65
		, 7	M		56	18 63	5		16	18 5	65
		, 8	M		56	18 66	4		16	19 1	65
		, 9	M		56	18 71	1		16	18 9	65
		, 10	M		56	18 72	4		16	18 2	65
		, 12	M		56	18 92			16	19 5	
		, 13	M		56	14 01	3		16	19 4	
		, 14	M		56	18 81			16	18 6	65
		, 16	R		56	18 92	4		16	19 3	
186	87 Tauri A ¹	Oct 17	R	3	56	39 51		68	17	36 3	
187	1847 Lacaille	Jan 11	M	3	58	6 93		149	2	35 3	79
		, 16	M		58	6 81			2	34 3	72

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
138	1359 Lacaille	Jan 7	M	4	0	0 83		147	50	5 9	8 7
		" 27	R		0	0 59			50	2 4	9 7
139	1375 Lacaille	Jan 15	M	4	2	54 42		148	50	46 0	8 9
		, 28	R		2	54 31			50	45 5	9 0
140		Jan 30	R	4	3	23 80	5	68	30	18 3	9 8
141	37 Eridani	Jan 5	M	4	3	44 58		97	16	55 3	5 6
142		Jan 6	M	4	5	0 07		150	5	33 3	8 7
		12	M		5	0 27	5		5	31 8	8 8
143	38 Eridani α^1	Jan 27	R	4	5	13 64		97	11	41 0	
		, 29	R		5	13 72			11	40 9	
		Nov 16	R		5	13 59	5		11	42 2	
144		Jan 16	M	4	9	18 82		149	31	9 8	8 3
		20	M		9	18 58	5		31	9 8	8 6
145		Nov 22	R	4	9	46 60		149	18	57 0	8 0
146	1489 Taylor	Jan 7	M	4	11	2 58		148	22	0 7	6 9
		11	M		11	2 73			21	59 7	7 3
147	1425 Lacaille	Jan 21	M	4	13	1 45		152	32	4 7	5 9
		, 27	R		13	1 17			32	1 2	6 5
148	U Tauri Var 7	Nov 24	R	4	13	53 65		70	30	42 4	9 7
149	T Tauri Var 6	Jan 28	R	4	14	3 74	4	70	47	24 9	10 5
		, 30	R		14	3 94			47	27 1	10 2
150	e Reticuli	Jan 12	M	4	14	8 76		149	37	48 1	5 0
		, 15	M		14	8 73	5		37	48 3	5 0
151	1513 Taylor	Feb 8	M	4	14	18 37	5	151	17	2 3	6 8
		Nov 28	R		14	18 14	3		17	3 0	6 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
152	61 Tauri δ^1	Jan 18	M	4	15	5 64		72	46	48 2	
		19	M		15	5 61			46	47 9	
		Oct 17	R		15	5 58			46	48 7	
153	62 Tauri	Dec 21	R	4	15	47 95		66	1	12 1	
		, 22	R		15	47 84			1	10 0	
154		Jan 6	M	4	16	45 55		149	4	26 5	8 8
155	69 Tauri ν^1	Dec 1	M	4	18	10 43		67	29	55 7	
		2	M		18	10 42			29	56 5	
		, 12	M		18	10 30			29	56 3	
		, 14	M		18	10 28			29	55 1	
		, 15	R		18	10 47			29	54 8	
		, 16	R		18	10 38			29	54 7	
		, 17	R		18	10 36			29	55 1	
156	74 Tauri ϵ	Jan 5	M	4	20	40 64	5	71	7	28 9	
		, 7	M		20	40 60			7	29 0	
		, 11	M		20	40 70			7	28 7	
		, 12	M		20	40 79			7	29 1	
		, 15	M		20	40 80			7	29 3	
		, 16	M		20	40 63			7	28 2	
		, 18	M		20	40 71			7	30 3	
		, 19	M		20	40 66			7	29 3	
		Oct 17	R		20	40 69			7	31 0	
		Dec 13	M		20	40 80			7	30 0	
		, 16	R		20	40 70			7	29 6	
		, 22	R		20	40 66			7	29 1	
		, 23	R		20	40 63			7	29 5	
157	R Tauri Var 2	Jan 29	R	4	20	51 25	4	80	8	38 1	10 0
		Feb 1	R		20	50 89	4		8	37 2	9 7
158		Jan 30	R	4	22	21 53	5	80	21	15 0	10 3
		Nov 24	R		22	21 81			21	14 4	10 0
159	1582 Taylor	Jan 21	M	4	23	12 66	5	151	32	49 3	6 0

repeated

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>	<i>'</i>	<i>"</i>	
160	1519 Lacaille	Jan	20	M	4	25	35.43	5	153	6	7.6	8.0
		Feb	2	R		25	35.40			6	5.6	8.3
161	1520 Lacaille	Jan	6	M	4	26	41.04	2	147	29	2.1	8.6
		Dec	7	M		26	41.09			29	2.7	8.2
162	87 Tauri <i>a</i> (Aldebaran)	Jan	5	M	4	28	7.21		73	46	4.1	
		,	11	M		28	7.17			46	4.0	
		"	12	M		28	7.17			46	3.9	
			15	M		28	6.98			46	4.7	
			16	M		28	7.16			46	2.8	
		Feb	5	R		28	7.15			46	2.3	
		Dec	12	M		28	7.20			46	4.2	
			13	M		28	7.26			46	3.1	
		,	16	R		28	7.11			46	3.4	
163	R Retculi Var 1	Feb	9	M	4	32	8.35		153	18	40.4	8.5
164	IV 696 W B N	Dec	13	M	4	32	36.08	6	66	27	30.3	9.0
			15	R		32	36.17			27	29.8	9.0
		,	21	R		32	35.97			27	30.7	9.5
		"	22	R		33	35.90	5		27	29.9	9.2
165		Jan	7	M	4	33	32.32	5	144	53	49.8	8.5
		"	21	M		33	32.49			53	50.6	8.5
166	IV 726 W B N	Nov	24	R	4	33	50.91	5	66	15	17.6	8.0
		"	25	R		33	50.93			15	17.2	
			29	R		33	50.98			15	18.1	
		Dec	16	R		33	50.93			15	17.3	
		"	17	R		33	50.98			15	16.9	8.2
		,	22	R		33	50.86	5		15	17.2	8.0
167	94 Tauri τ	Dec	1	M	4	34	5.16	5	67	18	27.9	
			2	M		34	5.22	4		18	27.7	
		,	6	M		34	5.05			18	27.2	
		,	7	M		34	4.99			18	28.0	
		,	8	M		34	4.97			18	28.1	
		,	9	M		34	4.98			18	27.5	
			10	M		34	5.01			18	27.1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				h	m	s					
168	95 Tauri	Nov 23	R	4	35	0 01	3	66	10	22 0	6 5
169	1567 Lacaille	Jan 22	M	4	35	11 25	2	152	20	46 8	5 6
		23	M		35	11 05			20	46 4	5 7
		Feb 8	M		35	11 20			20	47 8	6 2
170	1566 Lacaille	Jan 6	M	4	35	46 00		148	28	26 8	7 8
171	1663 Taylor	Jan 15	M	4	36	50 08		138	48	8 8	7 9
172	1582 Lacaille	Jan 20	M	4	37	18 87	5	152	38	44 8	7 7
		28	R		37	18 35			38	42 5	9 2
173		Jan 16	M	4	40	19 36	5	151	20	52 4	8 7
		27	R		40	19 09			20	52 7	9 8
174	κ Doradus	Jan 7	M	4	42	18 41	3	149	59	1 5	6 0
		11	M		42	18 49			58	59 9	6 5
		Feb 9	M		42	18 40			59	0 8	6 5
175	1629 Lacaille	Jan 21	M	4	43	42 96	5	153	28	32 3	6 0
		Feb 4	R		43	42 96			28	33 0	7 0
176	IV 995 W B N	Nov 24	R	4	45	6 60	4	66	3	10 3	8 2
		Dec 1	M		45	6 66			3	10 5	8 0
		, 2	M		45	6 55			3	10 8	8 0
		, 7	M		45	6 50			3	9 7	8 0
		, 8	M		45	6 51			3	9 3	8 0
		, 9	M		45	6 47			3	10 3	7 9
		, 10	M		45	6 54			3	9 1	8 0
		, 14	M		45	6 65			3	9 2	8 0
		, 22	R		45	6 57			3	9 5	
		Feb 10	M	4	45	55 56	5	153	4	2 2	8 8
178	IV 1018 W B N	Nov 23	R	4	45	58 88	4	66	13	39 8	
		25	R		45	58 66			13	39 2	
		29	R		45	58 60			13	39 7	
		Dec 6	M		45	58 58			13	38 1	8 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		"			
178	IV 1018 W B N	Dec 13	M	4	45	58 65		66	13	39 9	8 0
		15	R		45	58 74			13	39 5	8 5
		17	R		45	58 65	5		13	39 4	8 2
		20	R		45	58 67	5		13	39 2	
		21	R		45	58 62			13	39 8	8 3
179	1656 Lacaille	Jan 15	M	4	47	56 28		149	1	59 9	7 9
		20	M		47	55 98	5		2	1 7	7 8
		21	M		47	55 02	8		2	1 8	7 9
180	3 Aurigæ	Jan 6	M	4	48	8 12		57	3	12 5	
		12	M		48	8 34			3	11 9	
		22	M		48	8 49			3	12 3	
		23	M		48	8 43			3	11 7	
		, 28	R		48	8 45			3	10 6	
		Feb 5	R		48	8 48			3	11 1	
		8	R		48	8 55			3	10 8	
		12	M		48	8 41			3	11 9	
181	99 Tauri	Nov 16	R	4	49	33 66		66	16	3 3	
		21	R		49	33 63	6		16	3 8	
		22	R		49	33 62	6		16	2 4	
		23	R		49	33 75	4		16	4 4	
		25	R		49	33 77			10	3 5	
		29	R		49	33 58			10	3 7	
182	1761 Taylor	Jan 11	M	4	49	59 57		129	18	38 7	7 1
183	1780 Taylor	Jan 7	M	4	52	15 36		144	38	49 0	7 5
184		Jan 5	M	4	52	18 70		129	39	52 4	9 0
185		Dec 14	M	4	52	40 71		150	37	52 6	9 1
186	1797 Taylor	Jan 15	M	4	54	51 54		148	16	56 6	6 8
		, 16	M		54	51 26			16	58 5	6 7
187	102 Tauri	Feb 10	M	4	54	58 24	5	68	36	28 0	5 0
		, 16	R		54	58 12			36	29 3	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
188	1697 Lacaille	Feb 2	R	4	56	51 21	5	129	7	11 5	8 7
189	1811 Taylor	Jan 18	M	4	57	2 80		129	55	3 5	6 0
190	1705 Lacaille	Jan 20	M	4	57	25 62		129	16	38 4	7 7
		29	R		57	25 51			16	32 2	
		Dec 17	R		57	25 70			16	34 7	8 0
191	104 Tauri <i>m</i>	Feb 16	R	4	59	24 97	5	71	32	28 9	
192	2 Leporis <i>e</i>	Jan 19	M	4	59	42 18		112	33	23 7	
		, 27	R		59	42 23			33	21 5	
		28	R		59	42 19			33	21 5	
		Feb 11	M		59	42 31			33	23 0	
		12	M		59	42 18			33	22 1	
193	103 Tauri	Nov 16	R	4	59	49 43		65	55	7 3	
		21	R		59	49 38			55	6 4	
		23	R		59	40 43	3		55	7 5	
		, 25	R		59	49 45			55	6 9	
194	1739 Lacaille	Jan 7	M	5	2	51 42		146	57	53 9	8 4
		Dec 22	R		2	51 39			57	53 5	8 7
195	13 Aurigæ <i>a</i> (<i>Capella</i>)	Jan 23	M	5	6	38 82		44	8	40 5	
		, 29	R		6	38 67			8	40 0	
196	19 Orionis <i>β</i> (<i>Rigel</i>)	Jan 18	M	5	7	50 98		98	21	43 2	
		, 20	M		8	0 13			21	43 3	
		21	M		8	0 20			21	42 7	
		27	R		8	0 13			21	41 6	
		28	R		8	0 13			21	42 5	
		Feb 13	M		8	0 16			21	41 1	
		Dec 14	M		8	0 22			21	42 5	
197		Jan 15	M	5	8	29 40		150	36	21 0	9 2
		Feb 3	M		8	29 43	3		36	20 6	9 0
198		Nov 24	R	5	10	55 76		129	48	31 6	9 2
		Dec 23	R		10	55 46	4		48	31 8	9 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude	
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>				
199	112 Tauri β	Jan 19	M	5	13	25 23	5	153	41	45 5	7 9	
		29	R		13	25 15			41	42 6		
200		Feb 15	M	5	14	50 32	5	153	29	22 4	8 0	
201		Jan 20	M	5	17	37 82	5	153	7	21 9	8 2	
		Feb 2	R		17	37 76			7	18 0	8 5	
202		Jan 16	M	5	17	41 80		61	30	41 5		
		Feb 12	M		17	41 83			30	41 5		
		Dec 14	M		17	41 76			30	42 0		
203		40 R P L	June 16	R	5	18	45 12	3	4	53	3 4	
204		1984 Taylor	Jan 21	M	5	18	51 39	5	150	54	50 3	7 9
			Feb 4	R		18	51 29	4		54	50 7	7 3
205			Feb 3	M	5	19	4 78		148	14	18 4	9 0
206			Jan 18	M	5	19	45 66		181	3	54 0	9 3
207			Jan 27	R	5	21	42 30	5	59	41	0 6	10 0
			, 30	R		21	42 49	3		41	0 3	10 3
208			Jan 22	M	5	22	35 24		152	42	6 4	6 5
			Feb 15	M		22	35 26	4		42	6 1	8 2
209		λ Doradus	Jan 15	M	5	24	20 65	3	149	1	42 6	6 1
			Dec 9	M		24	20 45			1	44 9	6 0
210		34 Orionis ε	Jan 23	M	5	25	3 49		90	24	10 1	
			, 29	R		25	3 61			24	10 9	
			Feb 2	R		25	3 63			24	8 4	
211		11 Leporis α	Feb , 4	R	5	26	44 07		107	55	19 4	
			Dec 21	R		26	43 96			55	21 0	
212		46 Orionis ε	Jan 29	R	5	29	18 84		91	17	32 2	
			Feb 2	R		29	18 83			17	28 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
212	46 Orionis ϵ	Feb 3	M	5	29	18 91		91	17	31 4	
		, 8	R		29	18 87			17	31 2	
		16	R		29	18 79			17	32 5	
213	128 Tauri 3	Jan 19	M	5	29	30 98		68	56	40 3	
		20	M		29	31 34			56	40 0	
		Dec 12	M		29	30 94			56	39 9	
		13	M		29	31 23			56	40 0	
214		Jan 15	M	5	30	59 54	8	150	13	1 6	7 0
		Dec 17	R		30	59 34	4		13	4 1	
215	1949 Lacaille	Jan 22	M	5	32	15 80		154	19	4 4	6 2
216		Jan 7	M	5	32	42 28	6	150	11	35 1	8 9
		Feb 15	M		32	42 66	5		11	34 6	8 3
		Dec 17	R		32	42 42	4		11	36 4	
217	α Columbæ	Feb 1	R	5	34	43 58		124	8	55 4	
		, 2	R		34	43 58			8	52 6	
		, 3	R		34	43 53	3		8	55 2	
		, 4	R		34	43 54			8	56 1	
		, 8	R		34	43 46			8	56 5	
		Dec 15	R		34	43 45			8	56 0	
218	2118 Taylor	Jan 5	M	5	35	8 22		180	45	35 4	8 5
219	1971 Lacaille	Jan 11	M	5	36	21 37		149	11	31 9	7 0
		Feb 9	M		36	21 57			11	31 7	7 1
220		Jan 28	R	5	36	43 56		120	57	50 9	9 6
221	2184 Taylor	Feb 11	M	5	43	54 43	4	150	46	23 9	8 8
		Dec 23	R		43	54 56	3		46	25 2	9 3
222		Jan 19	M	5	44	9 32		152	58	5 0	9 0
		Feb 2	R		44	9 73			58	0 0	9 2
223	54 Orionis χ^1	Dec 12	M	5	46	19 65		69	45	11 2	
		, 13	M		46	19 74			45	12 4	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>	<i>'</i>		
224	α Orionis Var 1	Jan 23	M	5	47	48 67		82	37	17 9	
		Feb 3	M		47	48 52			37	17 2	
		Dec 14	M		47	48 55			37	17 1	
		15	R		47	48 64			37	18 4	
225		Feb 9	M	5	49	28 27 ⁶⁰		63	50	11 1	9 5
		Dec 21	R		49	28 58			50	14 7	9 2
226		Feb 2	R	5	49	36 83	5	130	1	18 6	9 7
227	43 R P L <i>sp</i>	Aug 11	M	5	52	0 00	3	3	14	22 0	
228		Jan 20	M	5	52	41 05		129	32	33 9	9 0
229		Dec 22	R	5	53	1 65		130	24	59 2	8 8
230	64 Orionis χ^*	Feb 16	R	5	55	24 35		70	18	40 6	
		, 17	R		55	24 38	5		18	40 9	
231	62 Orionis χ^*	Feb 10	M	5	55	50 82 ⁶⁷		69	51	42 9	5 0
232	2301 Taylor	Feb 3	M	5	58	29 56	3	148	6	17 9	6 5
233	2310 Taylor	Jan 7	M	5	59	37 50	5	150	29	7 1	6 7
		12	M		59	37 55			29	6 5	6 9
234	67 Orionis ν	Feb 1	R	5	59	48 52		75	13	7 6	
		, 9	M		59	48 51			13	7 7	
		11	M		59	48 42			13	7 7	
		, 16	R		59	48 50	5		13	9 0	
		, 17	R		59	48 41			13	8 0	
		Dec 15	R		59	48 44			13	8 1	
235		Feb 12	M	6	2	21 04		153	44	39 2	8 8
236		Feb 10	M	6	8	35 05	5	155	3	29 5	9 8
		Dec 23	R		8	35 01			3	31 6	9 2
237		Feb 1	R	6	8	53 37		130	31	33 4	9 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
238		Mar	2	M	6	10	6 15		153	14	23 0	9 6
239		Jan	5	M	6	11	2 62		149	53	52 1	7 0
		Feb	8	R		11	2 53			53	50 8	7 0
240		Feb	12	M	6	11	42 86	5	152	1	49 0	
		Mar	1	M		11	43 21	5		1	49 0	8 8
241	13 Geminorum μ	Jan	20	M	6	14	43 96		67	25	14 6	
			21	M		14	43 96			25	15 0	
			30	R		14	43 96	3		25	14 7	
		Feb	4	R		14	43 98			25	13 6	
			9	M		14	43 94			25	14 8	
		Dec	13	M		14	44 02			25	14 8	
			14	M		14	43 99			25	14 9	
			15	R		14	44 03			25	14 1	
242	2273 Lacaille	Mar	3	M	6	17	3 52		153	58	25 4	7 9
		"	4	M		17	3 79			58	24 4	8 0
243	2286 Lacaille	Feb	10	M	6	18	43 18		153	45	43 1	7 0
		Mar	2	M		18	43 88	4		45	43 6	7 0
244	α Argus (<i>Canopus</i>)	Jan	22	M	6	20	50 11	5	142	37	20 6	
		"	27	R		20	55 92			37	18 9	
			30	R		20	55 95			37	21 3	
245		Feb	8	R	6	22	6 43		128	48	41 2	8 5
			9	M		22	6 31	4		48	42 4	8 5
246	2312 Lacaille	Mar	5	M	6	22	3 95		153	36	33 9	7 3
247	2524 Taylor	Feb	1	R	6	23	27 42		131	3	3 0	7 2
248	2541 Taylor	Jan	16	M	6	24	54 95		147	54	58 9	6 6
		Feb	3	M		24	54 98	5		54	59 7	6 1
249		Feb	10	M	6	27	30 41		152	27	51 9	9 0
			22	R		27	30 71	4		27	51 3	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
250		Feb 1	R	6	27	45 69	5	131	5	17 8	9 0
		, 12	M		27	45 35	5		5	18 0	9 0
251		Feb 8	R	6	28	24 17		130	55	46 3	8 9
		15	M		28	24 42			55	48 2	9 0
252		Mar 1	M	6	28	39 37	8	151	10	1 6	8 6
		, 2	M		28	39 06			10	1 0	8 6
253	24 Geminorum γ	Jan 20	M	6	29	51 28		73	29	18 6	
		, 30	R		29	51 29			29	18 3	
		Feb 11	M		29	51 21			29	17 7	
		, 16	R		29	51 25			29	18 2	
		, 19	R		29	51 27			29	17 2	
		Mar 3	M		29	51 39			29	17 8	
		, 4	M		29	51 32			29	18 3	
		Dec 13	M		29	51 01	2		29	17 3	
		, 14	M		29	51 28			29	19 1	
254		Mar 10	M	6	33	33 10	5	152	27	3 8	8 8
255		Feb 3	M	6	34	30 70		130	27	55 6	7 7
256	51 Cephei (<i>Hev</i>)	Jan 11	M	6	35	39 20	3	2	45	18 7	
		, 15	M		35	40 06	3		45	21 9	
		, 19	M		35	39 37	3		45	19 8	
		, 22	M		35	38 79	2		45	20 9	
		, 28	R		35	39 19	3		45	19 6	
		Feb 9	M		35	38 85	3		45	20 2	
		, 16	R		35	39 17	3		45	18 6	
		, 19	R		35	38 18	3		45	17 4	
		26	R		35	38 95	3		45	17 3	
		Mar 3	M		35	40 98	2		45	19 8	
		5	M		35	39 41	2		45	17 6	
		<i>sp</i> July 18	R		35	38 69	3		45	18 2	
		<i>sp</i> Aug 16	R		35	38 96	3		45	18 3	
		<i>sp</i> , 23	R		35	38 27	3		45	22 0	
		Dec 15	R		35	39 37	3		45	16 7	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
257	2652 Taylor	Feb 10	M	6	36	32 86		151	24	50 1	7 0
		12	M		36	32 80	5		24	49 1	6 9
258		Mar 8	M	6	37	53 05		153	20	37 4	9 8
259	2667 Taylor	Mar 7	M	6	38	22 76		148	59	39 8	8 1
260		Mar 4	M	6	39	7 42	3	131	3	25 0	8 6
261	9 Can Maj α (<i>Sinus</i>)	Jan 26	R	6	39	9 31		106	31	57 2	
		27	R		39	9 11	5		31	56 0	
		Feb 15	M		39	9 22	3		31	56 5	
262		Feb 22	R	6	40	29 42		131	2	27 0	8 5
		Mar 9	M		40	29 47			2	27 2	8 3
		10	M		40	29 51	4		2	27 2	8 3
263	2724 Taylor	Mar 11	M	6	44	53 27	3	144	36	2 0	8 5
		14	M		44	53 40	5		36	1 2	8 7
264		Feb 18	R	6	46	32 75	5	130	10	6 9	9 5
		29	R		46	32 86	5		10	6 9	9 6
265	α Proctoris	Feb 10	M	6	46	47 55		151	47	46 1	5 0
		11	M		46	47 61			47	46 1	5 0
266	2500 Lacaille	Jan 20	M	6	46	59 78		130	23	21 3	8 0
		Mar 10	M		46	59 81			23	19 8	7 7
267	2532 Lacaille	Mar 7	M	6	48	12 77	5	150	5	32 2	6 9
		8	M		48	12 81			5	32 7	6 9
		9	M		48	13 02	4		5	32 7	6 7
268		Feb 18	R	6	48	50 62	5	130	10	16 6	9 1
		29	R		48	50 49	5		10	17 3	9 4
269		Feb 4	R	6	49	43 02	5	129	8	19 7	9 0
270		Jan 27	R	6	50	26 04	3	75	17	23 8	10 7
		Feb 1	R		50	25 72	4		17	26 4	10 6

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
271	21 Canis Majoris ϵ	Jan	26	R	6	53	16 91	3	119	47	22 7	
			30	R		53	16 91			47	20 9	
		Feb	3	M		53	16 88			47	21 8	
			9	M		53	16 81			17	20 8	
			10	M		53	16 82			47	21 2	
			15	M		53	16 95			47	21 1	
272		Jan	29	R	6	53	47 61	5	129	47	30 1	9 3
			Mar 10	M		53	47 83			47	31 6	8 8
		Mar	11	M		53	47 95			47	32 8	8 8
273	3 ¹ Geminorum (1st)	Feb	4	R	6	56	1 73	4	69	12	28 9	8 2
274	3 Geminorum Var 1	Jan	21	M	6	56	2 66	8	69	14	2 0	
			22	M		56	2 55			14	2 2	
		Feb	4	R		56	2 51			14	1 8	
			17	R		56	2 33			14	2 4	
			18	R		56	2 37			14	1 7	
275	2825 Taylor	Feb	11	M	6	56	51 97		150	54	38 0	8 7
			26	R		56	52 08			54	37 9	9 1
276	28 Canis Majoris γ	Jan	30	R	6	57	36 32		105	26	5 7	
			Feb 16	R		57	36 31			26	6 0	
		Feb	19	R		57	36 36			26	5 4	
			20	R		57	36 25			26	4 8	
277		Feb	13	M	6	58	23 12		66	56	5 9	9 2
			Mar 2	M		58	23 27			56	5 4	9 0
728		Mar	8	M	6	59	11 80		66	59	54 9	9 0
279		Jan	28	R	6	59	48 93		129	48	4 3	9 3
280	2851 Taylor	Mar	9	M	7	0	49 82		145	44	48 1	7 8
			10	M		0	49 80			44	48 1	7 7
281	R Canis Min Var 1	Jan	29	R	7	1	13 77	5	79	45	50 6	9 2

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
282	2882 Taylor	Jan 18	M	7	3	26 87		151	1	4 5	8 8
		26	R		3	27 04			1	1 7	9 2
		Mar 11	M		3	26 74			1	2 0	8 7
		14	M		3	26 96			1	2 7	8 8
283		Jan 25	R	7	4	58 07	5	130	42	33 2	9 3
284	2899 Taylor	Feb 2	R	7	5	47 67		130	8	49 2	8 9
285		Jan 30	R	7	5	51 92		129	23	13 1	9 5
286	2678 Lacaille	Mar 5	M	7	6	10 50		148	9	13 4	8 5
287		Jan 27	R	7	6	38 61		129	2	41 9	8 2
288		Jan 16	M	7	7	59 34		148	46	2 0	9 3
		Feb 9	M		7	59 51	3		46	1 7	9 2
289		Feb 11	M	7	8	9 14		152	5	1 5	8 9
		19	R		8	9 11			5	2 1	8 9
290	2940 Taylor	Jan 29	R	7	9	27 96	5	129	57	41 1	9 0
291	54 Geminorum λ	Feb 17	R	7	10	16 53		78	13	3 4	
		18	R		10	16 44	5		13	3 6	
		Mar 17	R		10	16 37			13	3 8	
292		Jan 28	R	7	10	16 60		131	52	8 3	9 8
293	55 Geminorum δ	Jan 21	M	7	11	59 85		67	46	16 3	
		22	M		11	59 94			46	15 6	
		Feb 1	R		11	59 91			46	15 0	
		10	M		11	59 94			46	14 7	
		13	M		11	59 92			46	16 4	
		15	M		11	59 98			46	16 2	
		Mar 1	M		11	59 91			46	15 8	
		2	M		11	59 94			46	15 2	
		3	M		12	0 00			46	15 7	
		4	M		11	59 95			46	15 6	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				h	m	s		°			
294		Jan 25	R	7	13	1 19		129	15	59 3	9 2
295		Jan 26	R	7	14	30 70	5	138	49	35 4	8 7
296	3005 Taylor	Mar 5	M	7	15	28 64	5	149	0	53 6	8 7
		14	M		15	28 96			0	54 9	8 6
297	2805 Lacaille	Mar 7	M	7	17	21 21		153	8	40	8 3
298		Feb 2	R	7	18	4 08		129	42	31 1	9 2
299	3043 Taylor	Feb 13	M	7	19	14 01	3	129	16	24 8	7 0
300		Jan 30	R	7	19	35 74	5	123	7	59 6	
301	63 Geminorum	Dec 14	M	7	19	39 74		68	16	48 7	5 5
		, 15	R		19	39 87	5		16	48 9	
302	3054 Taylor	Feb 11	M	7	20	1 94		151	41	28 7	7 0
		Mar 1	M		20	2 18	4		41	28 5	7 4
303		Feb 4	R	7	21	34 23	5	131	50	25 7	7 7
304	6 Canis Minoris	Feb 18	R	7	22	13 39		77	42	55 1	
305		Jan 27	R	7	23	² 24 08	5	51	57	26 3	9 8
306		Mar 3	M	7	24	58 41	4	123	8	19 2	9 0
307	8 Canis Minoris Var 2	Jan 30	R	7	25	20 43		81	28	41 7	8 3
308	68 Geminorum	Feb 18	R	7	25	50 58		73	53	30	
		19	R		25	50 65	5		53	40	
		Mar 17	R		25	50 60	5		53	32	
		Dec 15	R		25	50 67	4		53	44	
309	66 Gem α^3 (Castor)	Feb 15	M	7	25	55 07		57	49	28	
		, 17	M		25	55 11			49	13	
		26	R		25	55 01			49	13	

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
310		Jan 16	M	7	26	5 18		142	5	58 7	8 9
311		Mar 4	M	7	26	48 29		123	7	28 1	8 9
		5	M		26	48 21			7	21 6	9 0
		7	M		26	48 36			7	22 9	9 0
312		Mar 8	M	7	27	13 25		153	10	42 2	9 3
313	3126 Taylor	Feb 3	M	7	29	34 20	4	143	15	44 3	7 1
314	10 Can Min (<i>Procyon</i>)	Feb 5	R	7	32	10 96		84	25	47 0	
		17	R		32	10 84			25	46 7	
		, 18	R		32	10 85			25	46 5	
		26	R		32	10 86			25	45 9	
		Mar 2	M		32	10 84			25	45 8	
		, 9	M		32	10 80			25	46 0	
		10	M		32	10 87			25	46 3	
315	2898 Lacaille	Feb 13	M	7	32	43 53		121	49	28 0	8 0
		Mar 11	M		32	43 28			40	27 1	7 0
316	2910 Lacaille	Feb 22	R	7	33	17 38	5	143	52	^{6 8} 51 3	7 7
317		Feb 4	R	7	35	10 00		66	15	55 0	9 8
318		Mar 7	M	7	35	19 30	3	152	59	34 8	8 9
319		Jan 16	M	7	35	29 22		114	19	41 9	8 6
320	78 Gem β (<i>Pollux</i>)	Feb 5	R	7	36	59 34		61	38	56 2	
		, 10	M		36	59 43			38	55 7	
		, 18	R		36	59 38			38	55 7	
		Mar 1	M		36	59 40			38	56 6	
		2	M		36	59 36			38	56 5	
		5	M		36	59 68	5		38	55 8	
321	2971 Lacaille	Feb 12	M	7	40	13 18		143	54	58 7	7 5
		Mar 10	M		40	13 36			54	57 8	7 6
322	T Geminorum Var 4	Feb 2	R	7	41	3 37	4	65	55	48 7	10 4

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
323	3013 Lacaille	Mar 8	M	7	41	18 45	5	151	34	30 1	8 5
324		Feb 26	R	7	41	32 23		144	18	41 3	8 7
325		Feb 3	M	7	43	29 04	2	142	0	43 3	7 0
		Mar 11	M		43	29 03			0	43 0	7 0
326	49 R P L	Feb 15	M	7	43	55 47	2	5	33	41 4	
		Mar 9	M		43	55 14	3		33	42 2	
		Sept 13	M		43	55 11	2		33	42 4	
327	3034 Lacaille	Mar 7	M	7	44	4 63	5	153	51	39 1	8 8
328	3031 Lacaille	Jan 16	M	7	45	5 14		144	22	26 1	7 9
		Feb 29	R		45	5 15			22	27 2	7 6
		Mar 3	M		45	5 11			27	27 6	7 7
329	3290 Taylor	Jan 25	R	7	46	18 09	4	144	27	57 2	8 3
330	1791 Brisbane	Jan 25	R	7	46	18 63	3	144	24	39 2	8 3
331		Mar 4	M	7	46	29 42		144	22	26 0	8 5
		, 5	M		46	29 47	3		22	27 1	8 5
332	3310 Taylor	Feb 18	R	7	48	28 60		67	46	6 8	9 2
		Mar 2	M		48	28 62			46	6 6	9 0
333		Mar 14	M	7	48	32 66		140	17	52 9	7 0
334		Feb 5	R	7	48	59 01	5	130	26	3 1	9 5
335		Mar 8	M	7	49	29 50	5	152	34	55 6	6 9
336		Mar 10	M	7	50	^{5 12} 4 48	3	129	38	25 7	8 8
337	3339 Taylor	Feb 12	M	7	51	50 10		144	16	56 4	8 6
338		Mar 1	M	7	52	54 08		144	41	42 0	8 7

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
339	5 Cancri	Jan 22	M	7	53	45 13		73	10	23 2	6 0
		23	M		53	45 31			10	21 9	6 0
340	6 Cancri	Jan 26	R	7	55	9 63		61	49	39 8	
		Feb 2	R		55	9 78			49	39 9	
		Mar 9	M		55	9 68			49	40 8	
		11	M		55	9 72			49	40 8	
341	3373 Taylor	Feb 22	R	7	55	13 33	5	144	11	51 9	8 0
		Mar 3	M		55	13 78			11	53 1	7 8
342		Mar 16	R	7	55	20 11		128	30	12 2	8 0
343	1855 Brisbane	Mar 5	M	7	55	27 93		152	55	47 1	6 7
		7	M		55	28 21	3		55	47 2	7 0
344	3380 Taylor	Feb 13	M	7	55	48 11		144	10	34 0	7 6
		22	R		55	47 88	4		10	33 0	8 0
		Mar 4	M		55	47 90	6		10	34 4	7 9
345		Feb 1	R	7	56	31 51		129	21	20 2	9 8
346	3154 Lacaille	Jan 21	M	7	58	36 62	5	153	11	27 7	5 5
		Mar 2	M		58	36 64	5		11	29 5	5 6
		, 15	M		58	36 93	5		11	28 9	5 7
347	12 Cancri	Jan 22	M	8	1	6 38		75	57	59 2	6 0
		, 23	M		1	6 58			57	58 0	6 0
348	3174 Lacaille	Mar 8	M	8	1	25 72	5	155	37	56 8	7 0
		Apl 2	M		1	25 65			37	55 2	7 4
349	15 Argus	Jan 25	R	8	1	45 10		113	54	51 6	
		, 26	R		1	45 23			54	51 6	
		Feb 18	R		1	45 13	5		54	52 3	
		, 22	R		1	45 15			54	51 5	
		, 23	R		1	45 15			54	52 0	
		, 26	R		1	45 20			54	51 2	
		, 29	R		1	45 16			54	51 2	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
349	15 Argus	Mar 7	M	8	1	45 08		113	54	51 7	
		10	M		1	45 17			54	51 3	
350		Feb 12	M	8	2	2 82	4	113	46	47 6	9 1
351	3200 Lacaille	Mar 4	M	8	4	47 56	5	153	7	25 0	6 9
		, 9	M		4	47 70	3		7	23 6	6 9
352		Feb 4	R	8	5	19 41	4	130	45	22 9	8 6
353		Mar 17	R	8	5	20 16	5	77	37	35 3	9 9
		, 31	R		5	20 03	3		37	34 3	10 3
354		Mar 16	R	8	5	26 41		77	24	57 5	8 9
		22	R		5	26 36	4		24	57 8	8 9
		Apl 6	M		5	26 52			24	57 0	9 2
355		Mar 16	R	8	8	19 58	5	77	26	30 7	9 7
		Apl 4	M		8	19 78	3		26	30 7	9 7
		5	M		8	19 78	4		26	31 8	9 8
356	R Cancri Var 1	Mar 10	M	8	9	3 93	5	77	51	33 0	8 1
		14	M		9	3 61			51	33 0	7 9
357		Mar 22	R	8	9	7 36		77	27	27 6	9 3
		Apl 1	M		9	7 47			27	28 0	9 3
		, 2	M		9	7 51	4		27	28 1	9 0
358		Feb 2	R	8	9	55 34	5	74	16	13 7	9 7
359		Mar 17	R	8	10	28 71	5	77	37	47 9	9 7
		, 18	R		10	29 02	5		37	47 4	10 0
		, 31	R		10	28 80	5		37	47 5	9 9
360	16224 Lalande	Jan 25	R	8	10	33 55		73	54	11 0	8 5
361		Feb 5	R	8	12	17 13	4	128	43	38 1	8 8
362		Feb 5	R	8	12	45 20	4	128	40	53 7	8 9

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance. 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
363		Feb 16	R	8	12	57 45		130	45	32 2	9 7
364		Feb 17	R	8	13	20 72	5	131	41	14 0	9 5
		Mar 7	M		13	20 54	3		41	13 6	8 8
365		Feb 13	M	8	13	42 39	5	133	17	18 1	9 6
366		Mar 8	M	8	14	30 56		154	5	5 7	9 7
367		Mar 15	M	8	16	25 78	5	77	31	46 7	9 3
368		Mar 11	M	8	17	22 71		77	40	9 1	8 6
369		Feb 15	M	8	17	23 61		141	15	52 4	9 0
370	VIII 459 W B N	Feb 16	R	8	20	17 12	5	74	27	21 8	8 3
		, 17	R		20	17 06			27	21 4	9 0
		, 18	R		20	17 13			27	21 0	
371	29 Cancr	Feb 19	R	8	21	2 13	4	75	20	30 1	
372		Mar 10	M	8	23	7 87		73	25	24 3	9 0
		, 11	M		23	7 72			25	24 9	9 0
		, 14	M		23	7 85			25	24 3	9 0
373	3620 Taylor	Feb 13	M	8	23	10 60		130	47	47 6	8 0
374		April 2	M	8	23	32 12		128	38	35 7	8 6
375	31 Cancr 6	Dec 15	R	8	23	50 24		71	26	55 9	
376		Mar 1	M	8	24	44 93		73	45	40 9	9 5
		, 2	M		24	44 75			45	40 7	9 5
		, 3	M		24	44 77			45	40 7	9 5
		, 4	M		24	44 86			45	40 4	9 5
377	33 Cancr 7	Jan 25	R	8	24	50 41		69	5	59 3	.
		Feb 22	R		24	50 49			5	59 5	
		, 23	R		24	50 41			5	59 3	.

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
377	33 Cancr η	Feb 29	R	8	24	50 11		75	5	59 5	
		Mar 5	M		24	50 28			5	58 9	
		, 7	M		24	50 47			5	59 7	
		, 8	M		21	50 43			5	59 1	
		, 9	M		21	50 15			5	50 7	
		, 17	R		21	50 34			5	50 1	
378	3651 Taylor	Feb 5	R	8	25	39 62	3	103	3	20 0	7 8
379	3652 Taylor	Feb 5	R	8	25	43 64	5	130	2	38 3	8 3
		Mar 21	R		25	43 61			2	38 2	8 0
380	3393 Lacaille	Feb 10	M	8	25	56 92		149	40	8 3	7 8
		15	M		25	56 92			40	8 9	7 9
381		Apl 8	M	8	26	25 09		130	30	28 1	9 1
382	VIII 686 W B N	Mar 1	M	8	27	38 90		73	48	20 0	9 0
		, 2	M		27	38 97			48	19 2	9 0
		, 3	M		27	39 06			43	18 7	9 0
		, 4	M		27	38 78			46	19 8	9 0
383	U Cancr Var 4	Jan 26	R	8	27	59 07	5	70	38	21 2	10 0
		Feb 16	R		27	58 78			39	19 5	9 3
384	3672 Taylor	Feb 17	R	8	28	29 88		74	13	7 1	7 0
		, 18	R		28	29 82			13	8 4	7 3
		, 19	R		28	30 16			13	7 6	
385	16890 Lalande	Apl 4	M	8	28	41 64		73	12	52 4	9 0
		, 5	M		28	41 65			12	52 7	8 8
		, 6	M		28	41 63			12	51 7	8 8
386	VIII 684 W B N	Apl 9	M	8	29	1 20		70	38	51 4	8 9
387	VIII 699 W B N	Apl 1	M	8	29	31 11		70	39	37 1	9 0
388		Feb 29	R	8	31	12 43		129	45	21 0	9 4
389	3710 Taylor	Feb 28	R	8	31	24 29	5	141	21	4 0	8 2

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		°			
390		Mar 15	M	8	33	9 78	5	120	23	27 0	8 6
391	VIII 852 W B N	Feb 16	R	8	34	1 82	5	74	7	40 3	9 0
		17	R		34	1 86			7	39 7	9 0
		22	R		34	1 84			7	39 1	8 8
392		Feb 20	R	8	31	30 45	5	120	46	12 0	9 2
		Mar 7	M		31	39 32			46	12 1	8 9
		10	M		34	39 57			46	11 8	8 9
393	3491 Lacaille	Apl 7	M	8	36	1 13	5	152	21	51 3	7 9
394	S Cancr V ₂ 2	Apl 8	M	8	36	9 77	5	70	28	48 0	8 3
395	3767 Tylor	Mar 9	M	8	36	19 67	3	140	50	15 2	7 6
396	47 Cancr δ	Dec 15	R	8	36	57 18		71	20	55 9	
397		Apl 6	M	8	37	16 10		136	8	32 1	9 2
398	17231 Lalande	Feb 18	R	8	37	44 09		74	27	41 3	8 3
		„ 19	R		37	44 22			27	41 3	
		22	R		37	44 10			27	41 3	7 5
399		Feb 21	R	8	37	50 64	5	136	5	33 5	8 0
		Apl 2	M		37	50 51			5	33 7	8 6
400	VIII 977 W B N	Feb 10	M	8	39	15 32	4	74	48	59 3	9 5
		15	M		39	15 20			49	1 7	9 6
		16	R		39	15 18			49	0 5	9 5
401	11 Hydræ ε	Feb 26	R	8	39	34 01		83	5	44	
		29	R		39	34 20			5	4 5	
		Mar 5	M		39	34 16			5	3 6	
		8	M		39	34 30			5	5 0	
		14	M		39	34 26			5	4 7	
		15	M		39	34 33			5	4 8	
402		Feb 23	R	8	40	29 31		129	15	34 0	8 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
403	VIII 1043 W B N	Feb 5	R	8	42	21 57		74	39	54 0	8 3
		11	M		42	21 50			39	55 1	8 3
		12	M		42	21 36			39	54 0	8 2
404		Apl 4	M	8	45	46 04		86	27	12 6	8 7
		, 5	M		45	46 91			27	11 6	8 6
405	60 R P L	Mar 16	R	8	46	22 90	5	5	16	53 7	
		19	R		46	23 67	3		16	53 7	
		23	R		46	23 09	3		16	54 1	
		Apl 12	R		46	23 31	3		16	55 1	
		Sept 26	R		46	22 66	5		16	53 1	
		29	R		46	22 83	3		16	53 5	
406	S Hydræ Var 3	Mar 11	M	8	46	23 84		86	25	13 8	8 5
		Apl 9	M		46	23 87			25	13 0	9 0
407	3886 Taylor	Feb 13	M	8	48	13 86		136	52	52 5	7 9
		Mar 10	M		48	14 05			52	52 8	7 9
		15	M		48	14 14			52	53 1	7 8
408	T Hydræ Var 4	Mar 22	R	8	49	2 70	5	98	37	20 1	10 0
		30	R		49	2 77	5		37	29 2	9 7
409		Mar 9	M	8	49	13 13	3	132	54	10 8	7 7
410		Mar 4	M	8	49	20 12		132	59	0 7	7 6
411	9 Ursæ Majoris :	Feb 22	R	8	49	52 89		41	25	37 0	
		24	R		49	52 88			25	38 1	
		26	R		49	52 81			25	38 4	
		Mar 5	M		49	52 77	6		25	37 2	
412		Mar 7	M	8	50	15 28		132	56	55 1	8 0
413		Feb 17	R	8	50	46 62	5	98	44	16 8	9 8
414	VIII 1302 W B E	Mar 23	R	8	50	49 33	4	98	53	46 7	9 0

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1861			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
415	65 Cancri α	Feb 16	R	8	50	58 88	5	98	35	93	91
		Mar 17	R		50	58 75	5		35	92	92
Mar 18		R	8	51	2 70		77	37	59		
19		R		51	2 70	5		37	62		
Mar 8		M	8	54	9 76	5	142	41	88	91	
16		I		54	9 96			41	88	95	
Apl 13		M	8	54	20 33		130	34	53 3	84	
Feb 5		R	8	54	59 75	5	144	6	23 4	85	
Apl 7		M	8	56	59 39	3	146	55	44 0	81	
Feb 26		R	8	56	43 30		129	18	12 4	95	
422	Mar 30	R	8	58	5 43		146	49	41 4		
423	Apl 9	M	8	58	9 40		146	18	23 9	90	
424	Feb 24	R	8	59	6 08		145	38	98	87	
	Mar 14	M		59	6 09			38	92	90	
	Apl 8	M		59	5 94	5		38	87	91	
425	76 Cancri κ	Jan 23	M	9	0	22 92		78	47	13 2	
	Mar 18	R		0	22 69			47	12 4		
	, 19	R		0	22 72			47	11 4		
426	Mar 9	M	9	1	3 47	3	150	1	31 3	83	
	, 11	M		1	3 54	5		1	32 3	81	
427	Mar 17	R	9	1	50 14		123	57	10 7	80	
428	3705 Lacaille	Apl 14	M	9	2	13 97	3	151	17	31	71
		15	M		2	13 92	5		17	40	72
429	Feb 29	R	9	2	15 75	2	71	26	28 1	105	
430	Apl 13	M	9	4	23 60		130	29	40 7	87	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1861			No of Wines	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
444	9881 O A N	Feb 17	R	9	17	37 18	5	25	3	44 5	9 1
		Mar 23	R		17	37 40	5		3	44 9	9 2
445		Feb 23	R	9	19	29 04		75	6	30 3	7 7
		Mar 2	M		19	29 11			6	31 8	7 6
446	30 Hydreæ α Var 1	Mar 4	M	9	20	54 17		98	4	15 8	
		7	M		20	54 16			4	15 8	
		14	M		20	54 23			4	15 8	
		15	M		20	54 17			4	15 9	
		16	R		20	54 26			4	15 4	
		Apl 15	M		20	54 28			4	14 0	
447	3853 Lacaille	Mar 3	M	9	22	31 95		131	59	15 6	7 9
		22	R		22	32 10			59	14 9	8 6
		Apl 14	M		22	31 99			59	16 8	7 8
448	20 Uisro Majoris θ	Feb 24	R	9	23	44 63		37	42	10 0	
		Mar 17	R		23	44 48			42	18 8	
449	3886 Lacaille	Mar 19	R	9	24	43 28		141	49	48 5	7 8
450	3987 Lacaille	Mar 21	R	9	24	54 90		149	0	31 6	7 8
		Apl 6	M		24	55 11			0	31 7	8 3
451		Mar 9	M	9	26	42 23	5	145	2	26 6	8 8
		30	R		26	42 16			2	27 1	9 3
		Apl 4	M		26	42 17	3		2	26 2	8 8
452		Mar 31	R	9	26	55 57	5	141	58	8 4	9 0
453		Apl 7	M	9	27	58 54	5	128	45	53 6	8 8
454	4226 Taylor	Mar 8	M	9	28	37 63	5	146	29	33 0	7 0
455		Feb 23	R	9	28	54 88		128	46	55 4	8 2
456		Feb 27	R	9	29	1 22		128	49	33 6	8 0
		Mar 15	M		29	1 42	4		49	34 2	8 5

Separate Results of Nadir's Meridian Circle Observations in 1861

Number	Star	Date of Observation	Observer	Mean Right Ascension 1861			No of Wires	Mean Polar Distance 1861			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
431	3713 Lucille	Mar 16	P	9	4	34.63		113	40	12.4	8.8
432	4021 Taylor	Feb 2	R	9	5	31.07	5	138	41	10.7	7.0
		Mar 10	M		5	31.21	5		11	12.2	7.1
433		Apl 9	M	9	6	26.92	3	112	29	27.7	7.7
434		Feb 24	R	9	6	30.83	4	109	41	30.2	8.8
435		Mar 2	M	9	8	11.15	3	118	14	17.0	8.6
		3	M		8	11.11	3		14	13.7	8.0
		14	M		8	14.18			14	11.0	8.7
436	83 Cancer	Mar 11	M	9	11	23.15		71	43	13.8	
		„ 17	R		11	23.10			43	13.8	
		„ 21	R		11	23.09			43	13.2	
		Apl 12	M		11	23.13			43	13.0	
437		Feb 17	R	9	11	48.62		130	45	8.5	8.6
		22	R		11	48.64			45	7.8	7.8
		Apl 13	M		11	48.59			45	7.1	8.0
		14	M		11	48.63			45	8.0	8.2
438		Mar 10	M	9	13	3.38		72	17	58.1	7.9
		18	R		13	3.11			17	57.0	
		Apl 5	M		13	3.30			17	57.4	7.9
439	Arctus	Feb 26	R	9	13	27.00		118	42	22.0	
		Mar 30	R		13	26.96			42	21.8	
		Apl 15	M		13	27.22	3		42	23.2	
440		Apl 1	M	9	14	37.95	5	21	50	29.1	8.6
		2	M		14	37.68			50	29.4	8.6
441		Mar 22	R	9	15	15.46	5	143	48	40.2	9.0
442		Mar 23	R	9	15	54.93	5	25	4	26.1	9.0
443		Mar 1	M	9	16	6.17	4	140	7	34.8	9.0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
457	4259 Taylor	Mar 2	M	9	31	57 68	4	138	44	48 5	5 3
458		Mar 1	M	9	32	27 56		129	53	51 2	8 6
		18	R		32	27 62			53	53 5	9 2
		Apl 1	M		32	27 71			53	53 1	8 5
459		Mar 17	R	9	32	54 20	5	129	47	34 1	7 8
460	14 Leonis o	Jan 25	R	9	33	53 34		79	29	28 4	
		Apl 16	R		33	53 36			29	26 8	
461		Mar 3	M	9	34	43 83		130	34	30 5	9 0
		7	M		34	43 92	3		34	41 4	8 7
		22	R		34	44 01			34	37 2	9 0
462		Apl 8	M	9	35	33 97	5	151	56	22 6	8 5
463	17 Leonis e	Feb 19	R	9	38	7 56		65	36	5 9	
		23	R		38	7 56			36	6 0	
		24	R		38	7 50			36	6 6	
		Mar 8	M		38	7 57			36	7 7	
		17	R		38	7 45			36	5 9	
		,, 19	R		38	7 54			36	5 9	
		21	R		38	7 50			36	5 0	
		Apl 2	M		38	7 61			36	6 1	
464	R Leonis Var 1	Mar 31	R	9	40	14 29		77	56	32 5	6 0
		Apl 4	M		40	14 49	5		56	32 8	6 0
		, 5	M		40	14 38			56	32 4	6 0
		6	M		40	14 45			56	31 9	6 0
		7	M		40	14 48			56	32 1	6 0
465		Jan 26	R	9	41	50 08	5	130	49	18 8	8 7
466		Mar 23	R	9	42	42 08		130	47	49 2	9 0
467		Mar 2	M	9	43	27 04		143	56	51 3	9 0
		, 22	R		43	27 06			56	49 5	8 9
		Apl 1	M		43	27 16	5		56	50 4	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance 1864			Magnitude
				h	m	s					
468	70 R P L	Mar 9	M	9	43	34 18		143	45	55 2	7 7
469		Mar 21	R	9	45	55 93	6	129	2	51 8	8 8
470		Mar 1	M	9	46	18 43	3	5	25	49 5	
		14	M		46	17 64	3		25	49 8	
		Apl 2	M		46	18 06	3		25	48 3	
471	IX 1057 W B N	Mar 3	M	9	46	26 57		129	6	56 2	9 4
		7	M		46	26 51	3		6	56 5	9 0
472		Feb 17	R	9	49	44 66		85	6	41 9	7 2
		18	R		49	44 66			6	42 3	7 3
		23	R		49	44 68			6	42 0	7 3
473	4402 Taylor	Apl 5	M	9	49	53 39		129	47	30 3	7 9
		6	M		49	53 41	5		47	29 3	7 6
		12	M		49	53 41			17	30 4	7 3
474	29 Leonis π	Jan 25	R	9	53	1 18		81	18	17 0	
		Feb 19	R		53	1 47			18	17 5	
		" 22	R		53	1 45			18	16 8	
		" 24	R		53	1 44			18	18 0	
		" 25	R		53	1 46			18	16 1	
		Mar 11	M		53	1 42			18	18 1	
		" 19	R		53	1 54			18	17 8	
		Apl 4	M		53	1 47			18	18 6	
		" 14	M		53	1 52			18	17 8	
		" 15	M		53	1 30			18	17 6	
475		Apl 9	M	9	53	^{53 10} 52 92	4	152	6	48 9	9 3
476	4445 Taylor	Feb 26	R	9	54	43 15	3	147	28	41 9	8 7
		Mar 2	M		54	43 18			28	40 8	7 9
		9	M		54	43 09			28	40 6	7 7
		Apl 8	M		54	43 33	5		28	40 0	7 9
477		Mar 7	M	9	56	26 50		143	3	50 4	8 3
478		Feb 29	R	9	57	7 36	5	129	56	40 4	9 0

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1861			No of Wires	Mean Polar Distance 1861			Magnitude
				h	m	s					
479	4476 Taylor	Mar 31	R	9	57	51 23	1	115	36	43	8 5
480		Apl 13 26	M R	9	59	25 93 58 26 02	5	1 0	38	57 6 38 59 0	8 5 9 0
481	14 Sextantis	Feb 22	R	9	59	10 60	5	63	43	36 5	
482	31 Leonis A	Mar 19	R	10	0	11 11		79	20	15 0	
483	32 Leonis α (<i>Regulus</i>)	Mar 1	M	10	1	7 57		77	22	10 4	
		10	M		1	7 60			22	10 3	
		16	R		1	7 53			22	10 0	
		23	R		1	7 40			22	11 1	
		, 30	R		1	7 51			22	10 6	
		Apl 1	M		1	7 61			22	10 2	
		, 2	M		1	7 52			22	10 5	
		, 4	M		1	7 61			22	11 0	
		, 5	M		1	7 52			22	10 4	
		, 6	M		1	7 54			22	9 9	
		, 7	M		1	7 52			22	11 3	
		, 12	M		1	7 56			22	10 8	
		, 14	M		1	7 56	5		22	10 3	
		, 15	M		1	7 61			22	10 5	
484	4538 Taylor	Feb 29	R	10	2	46 64	5	129	57	38 4	9 0
485		Feb 26	R	10	6	9 49		129	19	26 2	8 3
		Mar 11	M		6	9 32			19	28 1	7 1
		Apl 8	M		6	9 45	4		19	26 9	7 0
486		Feb 25	R	10	9	1 48	5	139	51	41 4	
		Mar 14	M		9	1 44	3		51	42 2	9 1
487	72 R P L	Mar 31	R	10	9	20 53	3	5	3	38 8	
		Apl 15	M		9	20 33	3		3	39 1	
		16	R		9	20 35	3		3	39 0	
		s p Oct 3	M		9	21 11	3		3	35 8	
		s p Nov 2	M		9	20 78	2		3	38 5	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1861			No of Wires	Mean Polar Distance 1861			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
488	4577 Tylor	Mar 30	R	10	9	47 70		128	36	58 0	8 8
		Apl 1	M		9	47 77			36	57 1	8 7
489		Apl 13	M	10	10	15 97		139	51	9 0	9 0
490	41 Leonis γ^1	Mar 3	M	10	12	28 06		69	28	20 5	
		15	M		12	28 21			28	20 2	
		16	R		12	28 15			28	19 4	
		17	R		12	28 14			28	20 2	
		18	R		12	28 20			28	20 4	
		22	R		12	28 24			28	19 3	
		Apl 1	M		12	28 18			28	20 2	
		2	M		12	28 22			28	20 2	
		7	M		12	28 12			28	10 6	
		14	M		12	28 18	5		28	19 8	
491	43 Leonis	Jan 25	R	10	15	53 34		82	46	4 5	
		26	R		15	53 45			46	5 7	
492		Mar 31	R	10	16	8 21	5	75	24	31 4	9 0
		Apl 6	M		16	8 18			24	29 7	9 3
493		Feb 26	R	10	16	11 74	5	129	16	16 4	9 0
		Mar 7	M		16	11 88			16	16 6	8 8
494	4653 Taylor	Mar 9	M	10	18	19 1	5	151	23	10 5	8 4
495	45 Leonis	Jun 25	R	10	20	27 91	4	79	32	43 1	
		26	R		20	27 96	5		32	44 1	
		Apl 16	R		20	27 83	5		32	45 1	
496		Apl 13	M	10	21	55 82		116	59	1 4	9 0
497	30 Sextantis	Mar 21	R	10	23	20 43	5	89	56	25 8	
498		Mar 16	R	10	23	22 02	4	76	5	16 9	10 0
		, 19	R		23	22 37	3		5	18 5	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1861			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
499	47 Leonis μ	Mar 18	R	10	25	38 88	6	79	39	41 2	
		22	R		25	38 85			39	41 1	
		Apl 2	M		25	38 88			59	41 4	
		4	M		25	38 81			59	41 1	
		7	M		25	38 92			59	41 7	
		8	M		25	38 87			59	40 6	
		9	M		25	38 83			59	41 3	
		14	M		25	38 86			59	41 1	
		16	R		25	38 80			59	41 5	
		20	R		25	38 89			59	41 6	
500		Apl 13	M	10	29	12 38	3	147	51	36 6	9 2
501		Apl 16	R	10	34	52 10	5	139	16	37 9	9 7
		25	R		34	52 12	5		16	38 9	9 5
502		Apl 26	R	10	35	22 25		137	19	31 7	9 2
503	36 Sextantis	Mar 21	R	10	38	8 91		86	47	51 7	
504		Apl 4	M	10	38	46 97	3	144	50	22 2	8 2
		, 13	M		38	46 98			50	19 8	7 9
		15	M		38	47 32			50	21 3	7 9
505	η Argus Var 1	Feb 24	R	10	39	47 52		148	58	13 4	
		Apl 2	M		39	47 48			58	14 4	
		, 20	R		39	47 35			58	12 3	
506		Mar 15	M	10	41	25 52		146	23	11 9	9 0
507	53 Leonis ι	Mar 16	R	10	42	6 37		78	44	9 9	
		18	R		42	6 37			44	10 8	
		22	R		42	6 35			44	10 5	
		Apl 1	M		42	6 36			44	9 9	
		, 6	M		42	6 27			44	10 5	
		, 7	M		42	6 48			44	10 5	
		8	M		42	6 36			44	9 3	
		, 9	M		42	6 38			44	10 7	
		12	M		42	6 34			44	10 4	

Separate Results of Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
507	53 Leonis l	Apl 19	R	10	12	6 31		78	44	10 4	
		May 10	M		42	6 39			44	10 8	
508	4886 Taylor	Mar 4	M	10	42	47 47		137	2	0 2	7 0
509		Apl 14	M	10	45	4 05	3	141	45	5 6	7 9
		26	R		45	4 19	4		45	4 6	8 2
		28	R		45	4 16	5		45	3 7	8 3
510		Apl 26	R	10	46	2 79	5	141	39	51 2	8 4
511		Apl 20	R	10	47	52 85		140	5	33 6	9 0
512		Apl 5	M	10	47	59 18	5	129	29	12 6	8 9
513		Mar 22	R	10	50	16 20	5	114	30	30 0	9 0
514	4955 Taylor	Apl 13	M	10	50	10 47		117	19	36 3	6 8
515		Mar 23	R	10	52	18 94		113	36	15 0	9 0
516		Apl 4	M	10	52	52 78	6	139	32	46 6	8 3
		May 10	M		52	52 75			32	46 4	8 8
517	59 Leonis c	Feb 22	R	10	53	41 72		83	10	6 6	
		23	R		53	41 73			10	7 2	
518	61 Leonis p ¹	Jan 30	L	10	54	53 8		91	45	12 8	
519	50 Ursæ Majoris a	Apl 15	M	10	55	18 59	4	27	30	56 1	
		18	R		55	18 49			30	59 2	
		20	R		55	18 58	4		30	56 3	
520		May 13	M	10	56	59 18		115	32	27 1	8 2
521		Apl 25	R	10	57	1 96	5	115	35	40 0	9 3
522	4576 Lacaille	Mar 4	M	10	57	48 82	4	129	34	32 7	8 0
		May 12	M		57	48 88			34	33 4	7 7

Separate Results of Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
523	63 Leonis χ	Feb 24	R	10	58	0 02	4	81	55	47 2	
		Mar 19	R		58	0 07			55	47 0	
		21	R		58	0 17			55	45 8	
		23	R		58	0 12			55	46 5	
		, 30	R		57	59 97			55	46 3	
		31	R		57	59 99			55	46 5	
		Apl 5	M		58	0 04	4		55	47 1	
		, 8	M		57	59 95			55	45 7	
		, 9	M		58	0 01			55	46 7	
		13	M		57	59 95			55	46 3	
		May 10	M		58	0 09			55	46 6	
524		Apl 27	R	10	58	11 95		140	50	14 9	9 2
525	65 Leonis p^s	Apl 18	R	10	59	57 96	5	87	18	^{27 4} 29 9	
526		Apl 29	R	11	0	36 53	5	149	13	48 7	9 7
527	21367 Lalande	May 16	M	11	3	18 75		78	5	47 8	8 0
528		May 11	M	11	4	20 19		150	11	31 1	8 2
529	5092 Taylor	Apl 30	R	11	5	18 86	5	113	10	7 7	8 8
530		May 21	R	11	5	41 13		83	50	24 5	9 8
		, 22	R		5	41 07			50	25 1	10 0
531	69 Leonis p^s	Feb 22	R	11	6	47 83	5	89	10	48 4	
532	68 Leonis δ	Feb 25	R	11	6	52 25	3	68	43	54 7	
		Mar 19	R		6	52 26			43	56 0	
		23	R		6	52 28			43	53 7	
		30	R		6	52 30			43	55 4	
		31	R		6	52 27			43	55 7	
		Apl 9	M		6	52 33			43	55 6	
		12	M		6	52 27			43	56 3	
		13	M		6	52 24			43	54 8	
		, 15	M		6	52 33			43	55 9	
		20	R		6	52 24			43	55 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864	No of Wires	Mean Polar Distance 1864	Magnitude
				<i>h m s</i>			
533	74 Leonis ϕ	Apl 29	R	11 7 7 12	5	145 40 14 6	8 2
534		May 13	M	11 8 34 11		150 50 49 2	8 0
535		May 4	R	11 9 28 70		145 55 13 9	9 8
536		Jan 26	R	11 9 45 02		92 54 32 6	
		Mar 21	R	9 44 85	4	54 32 0	
		, 22	R	9 44 91	4	54 31 8	
		Apl 18	R	9 44 81		54 31 5	
537		Apl 26	R	11 10 31 90	5	141 8 35 7	9 8
538		Apl 27	R	11 11 8 16		127 38 22 5	9 0
539		Feb 25	R	11 12 32 55		104 2 33 7	
	12 Crateris δ	Mar 23	R	12 32 61		2 34 3	
		30	R	12 32 61		2 35 0	
		, 31	R	12 32 58		2 34 4	
		Apl 16	R	12 32 57		2 35 0	
		, 19	R	12 32 54		2 34 1	
		, 25	R	12 32 60		2 35 3	
		May 5	R	12 32 53		2 34 8	
540		Apl 30	R	11 12 48 64		129 32 6 0	8 2
		May 12	M	12 48 56		32 7 5	7 7
		14	M	12 48 55		32 7 0	7 9
541	4726 Lacaille	Apl 29	R	11 16 5 19		145 51 29 0	8 0
		May 2	R	16 5 22		51 28 9	7 2
542	5220 Taylor	Apl 30	R	11 19 0 53	5	131 55 30 6	8 2
		May 4	R	19 0 39		55 30 1	8 5
		, 13	M	19 0 61		55 31 7	7 6
543		Apl 23	R	11 19 24 95		129 30 57 8	8 6
544		Mar 30	R	11 21 41 86	5	128 22 47 4	9 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension. 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
545		Mar 21	R	11	22	7 53		129	4	15 7	7 8
		Apl 16	R		22	7 83			4	16 3	8 5
		27	R		22	7 50			4	15 1	8 5
		May 14	M		22	7 77			4	15 6	7 5
546		Apl 25	R	11	22	48 14		145	53	41 9	9 0
547		Apl 26	R	11	23	11 85		142	52	33 9	9 0
548	87 Leonis <i>e</i>	May 16	M	11	23	21 88		92	15	13 0	
549		May 2	R	11	24	35 16	5	146	8	57 3	9 0
		, 4	R		24	35 16			8	57 5	9 2
550		Apl 29	R	11	26	14 97		143	51	15 0	9 0
		, 30	R		26	15 07	5		51	15 3	9 2
551		Apl 28	R	11	26	39 88	5	23	17	32 2	10 2
552		Apl 26	R	11	29	50 97	5	149	10	40 3	8 5
553	91 Leonis <i>v</i>	Feb 23	R	11	29	59 09		90	1	21 1	
		24	R		29	59 15			1	21 0	
		Mar 18	R		29	59 10			4	21 3	
		21	R		29	59 05			4	21 1	
		Apl 5	M		29	59 17			4	21 2	
		6	M		29	59 23			1	21 0	
		13	M		29	59 19			1	21 8	
		16	R		29	59 10	5		4	21 8	
		18	R		29	59 12			4	24 7	
		, 27	R		29	59 08			1	23 3	
		May 2	R		29	59 13			1	21 4	
		16	M		29	59 05			4	25 0	
		, 18	M		29	59 19			4	23 5	
554		Apl 25	R	11	32	9 19		144	14	32 4	9 2
555		Apl 29	R	11	33	57 32		127	49	16 1	8 8
556		Mar 31	R	11	31	20 24	5	144	20	39 1	8 8

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
557	5384 Taylor	Apl 30	R	11	36	3 21	5	139	40	16 5	9 0
558		May 2	R	11	37	2 83	3	151	44	6 6	6 0
		, 10	M		37	2 86			44	7 9	6 0
559		May 3	R	11	38	9 35	4	149	38	49 4	8 0
560		Apl 28	R	11	38	42 13		129	34	5 1	9 8
561	94 Leonis β	May 19	M	11	40	56 ²³ ₈₅		149	52	2 4	7 9
562		Apl 4	M	11	41	9 03		126	30	25 6	8 7
563		Apl 5	M	11	41	12 31		129	32	6 9	8 4
		28	R		41	12 41			32	5 6	8 0
564		Mar 22	R	11	42	7 21	5	74	40	4 5	
		, 31	R		42	7 22			40	4 8	
		Apl 6	M		42	7 20			40	5 0	
		8	M		42	7 24			40	5 2	
		, 16	R		42	7 29			40	5 4	
		, 21	R		42	7 12			40	4 9	
		, 25	R		42	7 14			40	4 7	
		, 26	R		42	7 13			40	5 2	
		27	R		42	7 20			40	5 3	
		May 2	R		42	7 27			40	4 3	
		12	M		42	7 28			40	5 2	
565		Apl 29	R	11	43	8 20		143	45	15 4	9 0
		May 13	M		43	8 36			45	16 0	7 9
566	5 Virginis β	Feb 23	R	11	43	36 69		87	28	8 6	
		24	R		43	36 73			28	9 3	
		Apl 18	R		43	36 62			28	8 3	
		, 19	R		43	36 65			28	8 3	
567	5427 Taylor	May 20	M	11	44	5 15		94	34	33 6	6 0
568		Apl 30	R	11	44	44 16		129	2	40 7	8 7

36 93

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
569	5433 Taylor	Apl 28	R	11	44	51 57		129	30	30	77
570		May 8	R	11	45	51 40	5	142	31	06	93
571	64 Ursæ Majoris γ	Apl 21	R	11	46	39 67		35	32	56 9	
572		Mar 31	R	11	49	57 01		128	5	20 8	87
		Apl 27	R		49	56 91			5	29 3	87
573		Apl 4	M	11	51	28 05		128	52	34 2	84
574		Apl 25	R	11	51	36 57		144	12	54 1	93
575		May 10	M	11	52	20 94		154	32	32 2	
576		Apl 29	R	11	53	50 23	5	129	35	50 5	98
		May 14	M		53	50 07	5		35	40 6	96
577		Feb 25	R	11	56	23 62	5	128	20	56 4	90
		Apl 27	R		56	23 04			20	55 7	93
		May 18	M		56	23 58			20	55 2	88
578	5534 Taylor	Apl 30	R	11	56	40 55		143	57	19 9	80
579	4995 Lacaille	Apl 20	R	11	56	51 06		142	44	20 8	78
580	5535 Taylor	Mar 31	R	11	57	3 46	5	70	25	28 9	80
		May 8	R		57	3 48			25	30 5	78
581	89 R P L	Apl 6	M	11	57	51 03	3	3	39	31 9	
		May 12	M		57	51 57	3		39	35 0	
		Nov 5	M		57	51 06	3		39	33 9	
582		Feb 25	R	11	59	1 15	4	128	27	45 6	83
		Apl 27	R		59	1 28			27	45 1	80
583		Apl 29	R	11	59	44 39	5	144	16	10 7	90
		May 16	M		59	44 27	4		16	11 7	80
584		May 4	R	12	1	37 16	4	180	1	34 8	90

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
585	5041 Lacaille	Apl 14	M	12	2	32 88		141	23	143	79
586		May 5	R	12	2	37 25		141	5	39 5	90
587	10 Virginis	Apl 18	R	12	2	43 10		87	20	18 4	
588	2 Corvi ε	Apl 4	M	12	3	8 07	5	111	51	47 8	
		18	M		3	8 14			51	47 9	
		25	R		3	8 03			51	47 1	
		, 26	R		3	8 02			51	47 4	
		27	R		3	8 07	5		51	47 4	
		May 14	M		3	8 16			51	47 1	
		, 17	M		3	8 16			51	47 5	
		, 18	M		3	7 98			51	47 5	
589		May 3	R	12	6	3 08	5	130	11	7 8	99
590		Apl 8	M	12	6	12 17		138	27	32 0	82
591	5613 Taylor	May 2	R	12	7	55 41		130	22	49 0	80
592	69 Ursæ Majoris δ	May 13	M	12	8	40 84		32	12	42 6	
		, 19	M		8	41 14			12	42 1	
593		Apl 20	R	12	8	50 14		144	20	18 0	88
594	13 Virginis	May 23	R	12	11	41 99		91	1	51 6	
		23	R		11	42 14			1	51 0	
595	5618 Taylor	Apl 14	M	12	12	31 23		152	5	53 2	69
		May 12	M		12	31 30	5		5	57 2	69
		20	M		12	31 07			5	57 0	68
596	15 Virginis η	Apl 18	R	12	12	56 91		89	51	38 2	
		" 19	R		12	56 91			54	39 1	
		26	R		12	56 91			51	37 9	
		, 27	R		12	56 89			54	39 4	
		30	R		12	56 88			51	38 9	
		May 10	M		12	56 93			54	39 9	

41 07

31 20

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>	<i>'</i>	<i>"</i>	
597	5119 Lacaille	May 4	R	12	14	3 66	1	143	44	40 8	9 5
598		Apl 8	M	12	15	21 68		138	34	15 4	8 1
599		May 14	M	12	16	46 01		117	9	10 1	8 0
600		Feb 24	R	12	17	24 29		21	43	7 1	8 9
		May 2	R		17	21 15	4		13	7 1	8 5
601	α Crucis (1st)	May 5	R	12	18	39 10		113	30	50	9 8
602		Apl 27	R	12	19	0 47	5	129	13	17 8	
603		Apl 21	R	12	19	3 38		152	20	42 1	
		May 18	M		19	3 65	5		20	42 6	
604		May 13	M	12	21	6 90		145	42	20 9	8 0
		19	M		21	6 78			42	17 0	8 0
605	21 Virginis γ	Apl 14	M	12	24	38 55		150	58	39 2	8 3
		May 12	M		24	38 61	3		58	38 5	8 2
606		Apl 29	R	12	25	56 04	5	28	2	10	7 5
607		Feb 24	R	12	26	45 81		98	12	6 2	
		Mar 22	R		26	45 81			42	4 3	
		23	R		26	45 78			42	4 8	
		May 16	M		26	45 74			42	5 0	6 0
		, 17	M		26	45 89			42	5 0	6 0
608	9 Corvi β	May 14	M	12	27	4 41		38	0	26 8	8 0
609		Apl 21	R	12	27	14 82		112	38	38 0	
		May 5	R		27	14 84			38	39 3	
		6	R		27	14 94			38	39 1	
		7	R		27	14 85			38	39 3	
610		May 4	R	12	27	49 34	5	140	55	32 3	9 2

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
611	T Ursæ Majoris Var 3	Mar 31	R	12	30	11 19	6	29	45	49 3	9 5
		May 3	R		30	11 09		45	49 6		8 0
		19	M		30	11 ²⁴ / ₅₅		45	49 6		7 5
612		May 24	R	12	30	50 84	5	142	19	41 5	9 2
613	R Virginis Var 2	Apl 22	R	12	31	35 78	5	82	15	46 4	9 5
		May 13	M		31	35 88		15	47 8		6 9
		18	M		31	35 82		15	47 6		6 1
		20	M		31	35 9D		15	47 7		6 6
614		Apl 30	R	12	32	8 63	5	29	14	18 8	10 0
		May 2	R		32	8 53		14	21 4		9 5
615	26 Virginis χ	Feb 24	R	12	32	13 80	5	97	14	47 9	
		Apl 19	R		32	13 77		14	47 9		
		20	R		32	13 76		14	48 2		
		May 16	M		32	13 72		14	47 9		6 0
616		Apl 28	R	12	32	51 66		28	13	23 1	7 0
617	5830 Taylor	May 12	M	12	34	26 89		144	0	51 4	7 5
618	XII 592 W B E	Apl 13	M	12	36	1 17		93	17	48 5	8 0
		14	M		36	1 29		17	48 6		8 0
		15	M		36	1 43		17	48 7		8 0
619	S Ursæ Majoris Var 2	Apl 22	R	12	37	58 27		28	9	41 7	9 5
		May 5	R		37	58 37		9	42 6		9 9
620		Apl 5	M	12	39	36 14		94	1	52 6	9 6
		6	M		39	36 24		1	53 6		9 7
		7	M		39	36 36		1	51 6		9 6
621		May 14	M	12	40	49 04	5	141	52	54 0	7 9
622		May 7	R	12	41	40 06	5	141	40	33 0	8 0
623		May 19	M	12	42	3 ⁴¹ / ₅₄		147	16	27 3	9 2

Separate Results of Madras Meridian Circle Observations in 1861

Number	Star	Date of Observation	Observer	Mean Right Ascension 1861			No of Wires	Mean Polar Distance 1861			
				<i>h</i>	<i>m</i>	<i>s</i>					
624		May 13	M	12	42	17 38		112	51	46 9	87
625		May 26	R	12	42	51 09		119	25	15 1	91
626		May 12	M	12	43	17 33		129	7	50 7	81
627		Apl 28	R	12	43	26 16	5	83	19	11 1	88
		May 5	R		43	26 02			19	11 8	90
		, 20	M		43	26 04			19	11 1	87
		, 21	R		43	26 09	5		22 15 0		90
628	U Virginis Var 3	Apl 29	R	12	41	11 66	5	83	12	18 1	87
		May 3	R		41	11 77			12	19	11
		, 6	R		41	11 92	5		42	21 1	98
629	2922 Radcliffe	May 18	M	12	45	6 74		26	16	27 1	62
630		Apl 28	R	12	45	10 16	4	83	19	5 1	97
		May 5	R		45	10 04			19	7 0	98
		, 21	R		45	10 17	5		19	7 7	90
631	10 Virginis ψ	Apl 19	R	12	47	16 91		98	17	58 2	
		, 20	R		47	17 06			17	58 1	
632	99 E P L	May 17	M	12	48	9 91	4	5	50	52 8	
633		May 14	M	12	49	21 85	6	115	11	11 1	78
634	12 Can Venaticorum	Apl 22	R	12	49	39 68		50	16	47 9	
		, 26	R		49	39 62			50	47 9	
		May 8	R		49	39 62			50	18 5	
		, 4	R		49	39 60			50	47 7	
		, 6	R		49	39 53			50	47 1	
		, 7	R		49	39 52			50	18 6	
		, 18	M		49	39 71			50	18 6	
		, 16	M		49	39 61			50	47 1	
		, 19	M		49	39 60	3		50	48 7	
		, 25	R		49	39 58			50	18 3	
		, 26	R		49	39 53			50	18 5	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
635	5974 Taylor	May 28	R	12	51	54.65		143 38 34.3			8.7
636		May 20	M	12	53	16.40 ⁹		143 40 22.3			8.8
637		May 24	R	12	54	37.89		139 18 22.8			9.2
638		Apl 22	R	12	56	10.93	3	113 12 31.8			10.2
		25	R		56	11.09	4	12 32.0			10.3
639	5381 Lacaille	May 25	R	12	57	7.84		129 57 6.1			8.8
640		May 14	M	12	58	6.33	6	124 28 41.2			9.1
		19	M		58	6.16 ³	5	28 42.0			9.0
641	50 Virginis	Mar 23	R	13	2	38.28		99 36 11.9			
		May 17	M		2	38.32		36 10.9			6.0
		18	M		2	38.25		36 11.1			6.0
642	51 Virginis θ	Apl 28	R	13	2	54.61		94 48 43.3			
		29	R		2	54.58		48 43.3			
		May 3	R		2	54.57		48 44.3			
		4	R		2	54.58		48 43.4			
		7	R		2	54.60		48 43.8			
		12	M		2	54.50		48 44.1			
		13	M		2	54.55		48 44.6			
		16	M		2	54.58		48 45.0			
		24	R		2	54.62		48 44.8			
		25	R		2	54.57		48 44.9			
		26	R		2	54.56		48 43.8			
643		May 31	R	13	4	32.13	4	138 10 22.3			9.0
644	W Virginis Var 1	Feb 25	R	13	6	54.20	5	105 49 53.3			
		Apl 18	R		6	54.17	4	49 55.4			9.5
		25	R		6	54.19		49 54.9			8.0
		May 20	M		6	54.17 ⁹		49 55.1			7.7
645		May 14	M	13	9	45.48		129 56 15.3			8.0
		19	M		9	45.48 ⁹		56 16.0			8.2

32.3

54.19

46.49

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Solar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
646	58 Virginis	Mar 23	R	13	10	19 73		99	49	42 7	
647	101 R P L	Apl 26	R	13	10	26 73	3	1	37	17 0	
		May 5	R		10	26 00	3		37	18 5	
	<i>sp</i>	Oct 27	R		10	25 01	3		37	17 3	
648	6129 Taylor	May 18	M	13	12	12 90	3	130	29	30 9	7 4
		21	M		12	^{13.08} 12 99			28	29 8	7 4
649		Apl 29	R	13	12	58 10		122	50	34 2	7 8
650	5503 Lacaille	Apl 12	M	13	14	8 90		125	23	51 8	7 8
		May 31	R		14	8 93			23	50 9	
651	13563 O A N	May 30	R	13	15	24 40		27	53	14 0	8 5
652		May 24	R	13	15	47 75		145	12	51 0	8 8
653	67 Virginis α (<i>Spica</i>)	Feb 25	R	13	18	1 87		100	27	1 9	
		Apl 20	R		18	1 87			27	1 8	
		21	R		18	1 82			27	2 3	
		28	R		18	1 85			27	1 6	
		29	R		18	1 89			27	1 1	
		May 3	R		18	1 89			27	2 7	
		, 12	M		18	1 81			27	2 2	
		, 13	M		18	1 80			27	1 7	
		, 14	M		18	1 85			27	1 1	
		, 17	M		18	1 90			27	2 0	
		20	M		18	1 74			27	2 5	
		21	M		18	1 87			27	1 0	
		26	R		18	1 86			27	2 0	
		June 14	M		18	1 86			27	1 6	
654	V Virginis Var 7	Apl 16	R	13	20	46 90		92	47	59 2	9 3
655	R Hydrae Var 1	Mar 16	M	13	22	17 30		112	34	38 9	5 5
656		Apl 27	R	13	23	18 12	3	88	38	7 3	10 8
657	6257 Taylor	June 2	R	13	25	30 07	6	148	48	21 6	8 5

13 08

17
84

ray

12 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
658	76 Virginis <i>h</i>	Apl 20	R	13	25	48 62		99	27	46 9	
		21	R		25	48 37			27	47 3	
		June 15	R		25	48 47	5		27	48 0	
659	S Virginis Var 6	Apl 12	M	13	25	54 01		96	29	41 5	7 7
		May 23	R		25	53 94			29	42 2	6 3
660		June 3	R	13	26	37 79	5	131	35	11 9	8 8
661	79 Virginis 5	Apl 28	R	13	27	45 90		89	53	58 3	
		29	R		27	45 89			53	58 6	
		30	R		27	45 90			53	58 7	
		May 2	R		27	45 93			53	59 3	
		3	R		27	45 86			53	59 6	
		1	R		27	45 91	5		53	58 6	
		5	R		27	45 81			53	58 9	
		, 10	M		27	45 78			53	59 0	
		13	M		27	45 88			53	58 9	
		14	M		27	45 85			53	51 6	
		17	M		27	45 89			53	59 0	
		19	M		27	45 87			53	58 8	
		20	M		27	45 88			53	59 3	
		21	M		27	45 90			53	57 1	
		30	R		27	45 86			53	58 5	
662		May 21	R	13	36	31 14	5	144	38	18 4	9 0
		June 2	R		36	31 47	6		38	18 5	9 5
663	6363 Taylor	May 20	R	13	36	38 28		147	33	27 4	8 8
664		May 2	R	13	37	30 52	5	123	49	3 5	9 7
		30	R		37	30 21	5		18	3 2	9 5
665		May 20	M	13	37	31 19		128	40	16 9	7 7
666		May 3	R	13	38	13 85	6	122	47	5 3	8 7
		19	M		38	13 57	6		47	3 1	8 4
667		May 16	M	13	38	33 84	5	152	45	59 9	8 0
		21	M		38	34 19	3		45	59 9	8 3

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
668	85 Ursæ Majoris η	May 4	R	13	40	30 30		129	24	06	9 2
669		Apl 30	R	13	42	10 62		40	0	21 9	
		May 7	R		42	10 59			0	25 6	
		23	R		42	10 66			0	25 8	
670		May 5	R	13	43	14 30		123	6	31 9	8 7
		17	M		43	14 47			6	31 9	8 0
671		May 18	M	13	43	24 14	5	123	13	49	8 2
672		May 23	R	13	44	15 25		127	56	40 9	
673		May 30	R	13	45	23 48		128	23	45	9 0
674		May 3	R	13	45	42 35		122	54	30 9	8 5
	8 Bootis γ	31	R		45	42 44	5		54	31 7	
675		Apl 30	R	13	48	12 51		70	55	10 7	
		May 2	R		48	12 47			55	10 1	
		4	R		48	12 56	5		55	10 7	
		6	R		48	12 50			55	10 5	
		7	R		48	12 45			55	10 1	
		10	M		48	12 53			55	10 7	
		19	M		48	12 54			55	11 4	
		20	M		48	12 62			55	11 1	
		23	R		48	12 49			55	10 3	
		24	R		48	15 52			55	10 3	
		25	R		48	12 47			55	10 4	
		June 2	R		48	12 50			55	10 2	
		14	M		48	12 47			55	9 3	
676		Apl 19	R	13	50	11 63	4	123	43	43 6	8 3
		May 5	R		50	11 60			43	44 4	8 2
677		Apl 19	R	13	50	40 64	5	123	43	55 5	8 0
678		May 13	M	13	53	7 78	5	135	40	51 4	8 4

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
679	98 Virginis τ	Apl 22	R	13	54	43 57		87	47	44 9	
		28	R		54	43 56		47	45 1		
		29	R		54	43 57		47	44 2		
		30	R		54	43 59		47	44 9		
		May 12	R		54	43 60		47	45 5		
		14	M		54	43 50		47	44 9		
		23	R		54	43 57		47	46 4		
		24	R		54	43 51		47	45 7		
		, 25	R		54	43 64		47	45 7		
		28	R		54	43 66		47	45 7		
		30	R		54	43 60		47	45 5		
		June 2	R		54	43 61		47	45 2		
		14	M		54	43 49		47	45 0		
4 99 681 682 683 684 36 57 685 686 687	5794 Lacaille	May 21	M	13	57	48 0 ⁴⁹		152	47	34 6	6 3
	6585 Taylor	May 5	R	14	1	22 44		124	14	3 6	7 7
		May 24	R	14	2	25 92	4	129	4	15 8	9 0
		June 3	R		2	25 99		4	14 5		9 0
	U Bootis Var 4	Apl 22	R	14	4	21 56	4	79	32	32 1	9 2
		May 28	R		4	21 70		32	31 3		9 5
		June 2	R		4	21 67	5	32	33 2		9 7
	6616 Taylor	May 14	M	14	5	30 32		146	26	48 4	5 7
	98 Virginis χ	May 18	M	14	5	38 69 ⁷	3	99	38	19 9	
		19	M		5	38 54		38	20 4		
		May 12	M	14	6	8 79		135	1	18 1	8 2
	16 Bootis α (Arcturus)	May 23	R	14	9	27 52		70	6	29 8	
		28	R		9	27 51		6	29 5		
		June 2	R		9	27 58		6	30 5		
		4	R		9	27 52		6	29 6		
		7	R		9	27 54		6	29 5		
		, 10	M		9	27 60		6	31 1		

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
688	100 Virginis λ	Apl 21	R	14	11	45 23		102	44	35 4	
		22	R		11	45 13			44	36 1	
		May 18	M		11	45 12			44	36 1	
		June 15	R		11	45 31			44	35 6	
		16	R		11	45 15	5		44	36 0	
689		May 5	R	14	12	30 81		136	49	53 7	9 6
690		May 23	R	14	14	34 45	5	122	35	14 2	9 0
		June 27	M		14	34 30	1		35	14 9	8 8
691		May 14	M	14	15	19 50	6	122	11	30 6	8 7
692	6709 Taylor	June 3	R	14	15	58 65		119	3	19 6	7 0
693	2 Libræ	Apl 22	R	14	16	6 76		101	5	28 8	
694	5926 Lacaille	May 28	R	14	16	40 24		118	59	57 9	8 8
		June 2	R		16	40 19	4		59	58 6	7 5
		7	R		16	40 29	4		59	58 1	8 5
695	6721 Taylor	Apl 21	R	14	17	22 38	5	101	3	1 7	
696		June 4	R	14	17	24 96		123	13	23 0	10 0
697	6740 Taylor	May 24	R	14	19	5 13	4	133	42	56 5	7 2
		31	R		19	5 10	5		42	56 0	7 7
		June 29	M		19	5 01			42	56 5	7 5
698		May 23	R	14	21	57 61	4	122	33	59 6	9 3
699	5962 Lacaille	Apl 27	R	14	22	42 28		129	46	41 0	7 5
700		June 17	R	14	23	42 53		36	54	23 6	
701		May 23	R	14	24	12 79	5	123	48	36 4	8 8
		July 1	M		24	12 71			48	35 2	8 0
702	14634 O A N	June 16	R	14	25	51 40	3	20	8	24 1	7 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1861			No of Wires	Mean Polar Distance 1861			Magnitude
					h	m	s					
703	25 Bootis ρ	May	6	R	14	25	58 01		59	1	48 8	
			21	M		25	58 18 ³			1	48 4	
			30	R		25	58 01			1	49 5	
			31	R		25	58 11			1	49 5	
		June	2	R		25	58 01			1	49 3	
			3	R		2	57 99			1	49 2	
			4	R		25	58 07			1	49 3	
			8	R		25	58 10			1	49 7	
704	14652 O A N	June	16	R	14	27	1 13	4	20	6	57 6	85
705	R Camelopardi Var 1	May	5	R	14	28	9 31	1	5	33	16 5	108
706		May	24	R	14	29	26 79		124	55	30 2	80
707	α Centauri	June	4	R	14	30	23 05		150	16	24 1	
			15	R		30	23 09			16	23 9	
708		May	23	R	14	32	42 12		121	44	17 9	83
709	α Lupi	June	3	R	14	32	54 02	4	136	48	6 9	58
710	36 Bootis ϵ	May	18	M	14	39	2 87	5	62	21	3 6	
			28	R		39	2 50			21	2 9	
			30	R		39	2 94			21	4 0	
		June	3	R		39	2 95			21	4 7	
			4	R		39	2 81			21	3 7	
			8	R		39	2 87			21	4 1	
			15	R		39	2 79			21	3 7	
			16	R		39	2 76			21	3 1	
			17	R		39	2 88			21	3 4	
			24	M		39	2 81			21	3 8	
		July	7	R		39	2 79			21	3 2	
711		May	21	M	14	39	20 ⁴⁰ 33	5	124	9	35 2	77
		June	2	R		39	20 47			9	34 9	77
712		May	2	R	14	42	24 90	5	129	6	51 0	88
			23	R		42	24 77			6	50 8	87

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
21 54 5	9 Libræ α^2	Apl 22	R	14	43	21 42		105	28	28 2	
		May 19	M		43	21 52 ⁴			28	28 1	
		20	M		43	21 53 ⁵			28	28 9	
		June 3	R		43	21 46			28	28 0	
		4	R		43	21 40			28	28 4	
		7	R		43	21 53			28	27 9	
		14	M		43	21 57			28	27 7	
		15	R		43	21 47			28	26 2	
		17	R		43	21 57			28	27 6	
		18	R		44	21 58			28	26 1	
		21	M		43	21 47	2		28	27 6	
		July 7	R		43	21 53			28	27 5	
	714	7 Ursæ Min β Val 1	May 28	R	14	51	8 11	5	15	17	19 1
	715		May 23	R	14	51	23 24	5	39	19	38 3
	716		June 27	M	14	51	35 46		123	12	43 3
52 26 54	717	6991 Taylor	May 21	M	14	51	52 26 52 27		30	48	49 7
	718	1.004 O A N	May 23	R	14	53	52 88	5	39	21	3 3
	719	15023 O A N	June 16	R	14	55	39 17	5	27	47	28 9
	720	43 Bootis ψ	May 18	M	14	58	37 09		62	31	15 0
			28	R		58	37 01			31	13 7
			31	R		58	37 16			31	13 6
			June 7	R		58	37 05			31	14 6
			8	R		58	37 12			31	14 8
			15	R		58	37 02			31	13 9
			18	R		58	37 08			31	14 1
			July 8	M		58	37 09			31	14 6
	721	7079 Taylor	June 27	M	15	3	19 98		123	7	14 8
	722	15188 O A N	May 25	R	15	4	7 39		43	0	6 3
28 22 34	723	24 Libræ ϵ^1	May 19	M	15	4	28 20 ²		109	16	28 8
			20	M		4	28 32 ⁴	3		16	29 4

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
44 18	724 III HH R P L	May 21	M	15	5	^{44 15} 45 19	3	5	31	23 7	
	725 27 Libræ β	Apl 22	R	15	9	41 44		98	52	43 6	
		June 10	M		9	41 49			52	44 6	
		15	R		9	41 52	5		52	42 7	
		16	R		9	41 45			52	43 3	
		30	M		9	41 46			52	43 6	
		July 4	M		9	41 32			52	43 5	
		11	M		9	41 39			52	43 9	
	726	May 25	R	15	14	12 39		123	7	30 8	9 5
	727	June 16	R	15	20	23 60		130	8	35 3	8 7
		27	M		20	23 57	5		8	34 3	8 8
		July 1	M		20	23 53			8	34 4	8 7
	728 32 Libræ γ	June 17	R	15	20	35 48		106	14	22 2	
	729	May 25	R	15	21	40 06	5	129	25	58 8	7 5
	730 XV 395 W B E	July 9	M	15	21	58 56		101	15	29 5	8 9
		, 25	R		21	58 55	5		15	31 5	8 8
	731 114 R P L <i>sp</i>	Dec 20	R	15	22	29 01	2	2	14	59 0	
	732 XV 429 W B E	July 22	R	15	24	2 45		101	28	29 1	9 2
		, 25	R		24	2 69	4		28	30 8	9 5
	733 7240 Taylor	May 13	M	15	24	24 18		130	1	28 8	7 5
	734 3394 Radcliffe	June 18	R	15	25	3 61	5	41	49	6 2	8 0
	735 38 Libræ γ	Apl 22	R	15	27	55 18	6	104	20	0 5	
		23	R		27	55 20			20	0 6	
		June 16	R		27	55 37	4		19	59 9	
		17	R		27	55 31			19	59 5	
	736 5 Corona Borealis α	June 3	R	15	28	55 75		62	49	33 1	
		, 29	M		28	55 38			49	33 7	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
736	5 Corona Borealis α	June 30	M	15	28	55.82		62	49	32.9	
		July 4	M		28	55.78			49	31.0	
		8	M		28	55.82			49	31.2	
737		June 4	R	15	29	12.53	5	119	40	28.0	9.8
738		May 25	R	15	30	9.95	5	129	33	27.5	9.0
739	28530 Lalande	June 18	R	15	31	50.66		47	25	19.7	9.0
740	XV 645 W B E	June 17	R	15	34	22.72		102	19	14.3	
		27	M		34	22.49	4		19	10.7	8.2
		29	M		34	22.52	4		19	18.6	6.1
741	XV 675 W B D	June 7	R	15	35	56.53	5	102	41	26.2	9.3
		July 1	M		35	56.31			41	26.5	9.1
		4	M		35	56.45	3		41	27.2	9.3
742	24 Serpentis α	Apl 23	R	15	37	34.26		83	8	38.6	
		June 18	R		37	34.20			8	39.4	
		30	M		37	34.13			8	39.3	
		July 7	R		37	34.15			8	38.9	
		8	M		37	34.18			8	39.7	
		11	M		37	34.15			8	39.2	
		22	R		37	34.20			8	38.9	
743		May 25	R	15	41	26.70		62	3	16.3	9.2
		, 28	R		41	26.74			3	16.2	9.7
744		May 23	R	15	42	32.18	4	61	46	38.9	10.0
745	R Serpentis Var 2	July 1	M	15	44	25.44	5	74	27	47	7.4
746	3462 Radcliffe	June 18	R	15	46	28.61		47	1	30.6	8.0
747	28970 Lalande	July 23	R	15	47	57.96	5	70	49	3.7	7.8
748	28980 Lalande	May 26	R	15	48	54.38		104	25	44.3	
		July 9	M		48	54.48			25	44.9	6.1
		11	M		48	54.25			25	44.8	6.1

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				h	m	s					
719	16 Ursæ Minoris 3	June 4	R	15	48	59.52	5	11	47	18.8	
		July 22	R		48	59.07	5		47	20.7	
750		May 31	R	15	49	24.70	5	103	59	0.0	8.9
		July 2	M		49	24.78			59	0.4	9.0
		25	R		49	24.63	3		59	2.6	
751	29001 Lalande	June 2	R	10	50	30.71	5	104	3	35.0	7.8
		3	R		50	30.60	5		3	35.6	8.9
		7	R		50	30.71			3	35.3	9.0
752	8 Scorpi β ¹	Apl 23	R	15	57	31.91		109	20	47.8	
		May 20	M		57	31.90 ²			25	49.5	
		21	M		57	31.87 ²⁰			25	47.1	
		June 27	M		57	31.96			25	49.1	
		28	M		57	31.96			25	48.5	
		July 4	M		57	31.91			20	49.2	
		20	R		57	32.05	5		20	49.5	
753		May 25	R	15	59	58.63	5	105	16	21.9	8.2
		, 28	R		59	58.57	5		16	22.7	8.5
		July 1	M		59	58.43	5		16	21.8	8.2
754	15281 O A S	May 23	R	16	0	58.50	6	105	43	43.4	9.3
		, 31	R		0	58.49	6		43	43.4	9.3
		June 2	R		0	58.43	5		43	42.7	9.4
755	14 Scorpi ν	Apl 23	R	16	4	55.8 ⁹	4	199	6	15.5	
		May 20	M		4	57.1			6	15.9	
756	116 R P L s p	Jan 4	M	16	4	43.76	5	4	18	46.2	
757	15412 O A S	May 28	R	16	6	18.76	6	106	3	7.9	9.5
		June 3	R		6	18.47			3	7.8	9.5
		7	R		6	18.53			3	7.6	9.0
758	15418 O A S	May 25	R	16	6	30.88		106	11	31.1	8.5
		31	R		6	30.99			11	30.5	8.8
		July 4	M		6	30.85	5		11	31.8	8.8

Separate Results of Madras Meridian Circle Observations in 1861

Number	Star	Date of Observation	Observer	Mean Right Ascension 1861			No of Wines	Mean Polar Distance 1861			Magnitude
				h	m	s					
759	1 Ophiuchi δ	June 16	R	16	7	13 18		93	20	30 6	
		27	M		7	13 17			20	30 3	
		, 28	M		7	13 19			20	30 2	
		29	M		7	13 14			20	30 6	
		July 22	R		7	13 21			20	30 8	
760	15544 O A S	May 25	R	16	12	46 68	5	106	15	57	5 7
		, 23	R		12	46 76			15	6 5	5 7
		31	R		12	46 76			15	6 4	5 7
761	20 Scorpii σ	Apl 23	R	16	12	55 40		115	15	47 0	
		June 17	R		12	55 60			15	47 1	
		18	R		12	55 17			15	46 0	
762	15552 O A S	July 1	M	16	13	13 89	3	107	22	10	9 2
763		June 16	R	16	15	46 22		128	7	41 2	8 9
764	21 Scorpii α (Antares)	Apl 23	R	16	21	4 29		116	7	37 1	
		June 7	R		21	4 85			7	36 7	
		, 17	R		21	4 32			7	37 2	
		18	R		21	4 31			7	36 2	
		27	M		21	4 33			7	36 9	
		23	M		21	4 30			7	36 7	
		29	M		21	4 30			7	37 2	
		30	M		21	4 31			7	37 3	
		July 22	R		21	4 28			7	36 4	
		23	R		21	4 42			7	37 0	
765	30 Hercules γ Var 5	June 16	R	16	24	10 48		17	49	3 1	5 5
766	13 Ophiuchi 3	July 13	R	16	29	40 28		100	17	19 7	
767	5784 Brisbane	May 25	R	16	30	51 60	5	150	39	26 0	9 5
768	40 Hercules 3	June 21	R	16	36	9 62		58	5	57 3	
		July 1	M		36	9 53			8	57 2	
		4	M		36	9 71			8	56 1	
		11	M		36	9 65			8	56 3	
		, 18	R		36	9 57			8	57 1	

Separate Results of Nadir's Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observed	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
63 38	40 Hercules 5	July 23	R	16	36	9 57		58	8	56 7	
		25	I		36	9 53			8	57 9	
769		June 4	R	16	41	52 56	5	75	16	44 4	10 0
770	27 Ophiuchi κ	June 25	M	16	51	13 85		80	24	39 3	
		29	M		51	13 77			24	40 8	
		July 19	R		51	13 78			24	40 2	
		25	R		51	13 81			24	40 4	
		Aug 5	M		51	13 85			24	39 4	
		8	M		51	13 80			24	40 6	
		13	M		51	13 86			24	39 4	
771	16232 O A S	July 22	P	16	53	57 53	5	110	14	43 5	9 8
772	16233 O A S	July 11	M	16	53	58 62		110	23	35 0	8 0
16 45	773	June 4	R	16	55	15 57		109	56	33 8	7 7
774	22 Ursa Minoris ϵ s p	Feb 9	M	17	0	1 71	5	7	44	43 4	
		June 16	R		0	1 59	5		44	39 4	
		July 18	R		0	1 33	5		44	40 8	
		Aug 8	M		0	1 53	3		44	40 2	
		11	M		0	1 04	3		44	39 8	
		Dec 15	R		0	1 20	6		44	44 6	
34 90	35 Ophiuchi η	May 21	M	17	2	34 57 ⁴²		105	33	9 1	
		June 18	R		2	34 86	4		33	11 5	
776		July 22	R	17	5	41 18		130	0	23 7	9 0
777	64 Hercules α Var 1	June 21	R	17	8	26 73		75	27	8 5	
		July 1	M		8	26 78			27	8 8	
		, 11	M		8	26 76			27	9 4	
		, 18	R		8	26 78			27	7 3	
		21	R		8	26 80			27	7 9	
		26	R		8	26 73			27	7 2	
		Aug 5	M		8	26 72			27	9 0	
		12	M		5	26 83			27	8 7	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
778		June 29	M	17	9	1 79		124	4	16 2	8 2
779		July 22	R	17	11	57 45 ^{58 18}		130	27	39 3	9 8
780	8017 Taylor	May 21	M	17	13	21 36	3	114	45	51 2	
		June 17	R		13	21 22		45	55 4		
		Aug 15	M		13	21 16		45	54 1		6 7
781	42 Ophiuchi θ	June 18	R	17	13	39 55		114	51	55 7	
		July 21	R		13	39 40	5		51	57 1	
		26	R		13	39 54			51	56 3	
		Aug 5	M		13	39 65			51	57 0	
		13	M		13	39 41			51	56 0	
782	44 Ophiuchi δ	Aug 13	M	17	18	3 97		114	2	48 4	5 0
783	δ Aræ	June 17	R	17	18	40 75		150	33	54 6	
		July 1	M		18	40 58	3		33	56 7	6 7
784		July 22	R	17	21	22 44	5	130	32	55 8	8 3
785		Aug 15	M	17	21	22 60	5	130	50	57 0	8 4
786		July 11	M	17	28	25 03		125	14	39 7	8 7
787	55 Ophiuchi α	June 21	R	17	28	37 28		77	20	18 1	
		July 1	M		28	37 21			20	18 6	
		26	R		28	37 23			20	17 9	
		Aug 5	M		28	37 23			20	18 5	
		8	M		28	37 27			20	19 1	
788		July 22	R	17	29	22 89		130	56	24 1	8 9
789		July 22	R	17	34	34 46	5	126	15	0 4	9 3
790		July 22	R	17	39	16 94	5	127	17	24 4	9 8
791		July 18	R	17	39	43 84		127	14	36 4	8 5

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
792	86 Herculis μ	July 1	M	17	41	8 23		62	11	52 5	
		Aug 12	M		41	8 16			11	52 2	
793	31 Draconis ψ (1st)	June 18	R	17	44	22 18		17	47	6 9	6 5
794		Aug 9	M	17	45	2 69		128	47	39 5	8 9
795	7004 Lacaille	Aug 8	M	17	48	32 17		129	47	48 6	7 0
796		July 22	R	17	50	25 24		180	50	22 0	8 8
		25	R		50	25 27	5		50	23 5	9 0
		Aug 5	M		50	25 08	5		50	22 4	8 4
797	7018 Lacaille	Aug 15	M	17	52	43 11	3	149	12	14 6	7 0
798	33 Draconis γ	Aug 12	M	17	53	26 91		38	29	39 1	
799	8350 Taylor	Aug 9	M	17	56	59 84		133	25	39 0	5 5
800		July 25	R	18	1	13 86		131	43	35 8	9 7
		Aug 5	M		1	13 60			43	34 1	8 7
801		July 25	R	18	2	49 27	5	181	44	29 2	9 0
802	1 Hercules Var 4	Aug 16	R	18	3	57 37		58	59	52 7	8 2
803	13 Sagittarii μ^1	Aug 8	M	18	5	37 79		111	5	26 2	
		9	M		5	37 76			5	27 7	
		12	M		5	37 68			5	28 3	
		15	M		5	37 75			5	28 6	
804	15 Sagittarii	Aug 13	M	18	7	6 02		110	45	54 7	5 0
805	8461 Taylor	Aug 15	M	18	14	24 47		134	10	24 8	6 1
806	23 Ursæ Minoris δ s p	Feb 11	M	18	16	13 73	3	3	23	45 3	
	s p	15	M		16	13 32	3		23	44 3	
	s p	, 16	R		16	13 35	3		23	48 6	
		Aug 16	R		16	13 02	3		23	47 9	
	s p	Dec 15	R		16	13 53	2		23	47 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
807	21 Sagittari	Aug 13	M	18	17	14 94		110	36	40 7	5 0
808	δ Telescopii	July 18	R	18	21	58 12	5	135	50	44 8	6 7
		Aug 15	M		21	58 25	5		50	47 2	6 3
809		July 25	R	18	22	51 47	5	135	15	54 9	9 0
810	θ Coronæ Australis	Aug 20	R	18	23	47 14		132	24	22 3	6 0
811	β Lyræ α (<i>Vega</i>)	Aug 8	M	18	32	20 05		51	20	29 0	
		9	M		32	19 95			20	29 6	
		12	M		32	19 94			20	28 9	
		15	M		32	19 95			20	29 4	
812	R Scuti Var 1	Aug 22	R	18	40	13 20		95	50	53 8	6 0
813	7872 Lacaille	Aug 20	R	18	42	20 14	5	186	45	1 7	6 0
814	7878 Lacaille	Aug 20	R	18	42	53 19	4	186	44	39 6	7 0
815	10 Lyræ β Var 1	Aug 23	R	18	45	3 46		56	47	36 4	
		20	R		45	3 37			47	36 6	
		Sep 9	M		45	3 40			47	36 5	
816		Aug 26	R	18	46	54 04		137	44	56 1	9 7
817	γ Sagittari β	July 18	R	18	49	36 78		111	16	55 7	
818	13 Lyræ Var 2	Aug 12	M	18	51	11 38		46	13	54 8	
819		July 18	R	18	54	10 28	6	122	56	13 3	8 3
		Aug 29	R		54	10 57			56	13 0	7 5
820		Aug 16	R	18	57	17 47	5	111	21	9 2	9 9
		22	R		57	17 37	5		21	8 6	10 0
821	17 Aquilæ β	Aug 9	M	18	59	9 49		76	20	11 5	
		11	M		59	9 43			20	11 5	
		29	R		59	9 46			20	11 2	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
821	17 Aquilæ 3	Aug 31	R	18	59	9 37	5	76	20	12 2	
		Sep 2	M		9	9 54			20	12 0	
		9	M		59	9 42			20	10 7	
		10	M		59	9 14			20	12 5	
822		Aug 5	M	19	0	51 71		82	1	34 1	
823	41 Sagittari π	July 19	R	19	1	40 55		111	14	49	
824		Aug 24	R	19	3	6 08	5	139	22	42 7	9 0
825		July 11	M	19	3	13 46		122	51	5 7	8 0
		Aug 8	M		3	13 51			51	6 4	8 0
826	1 Sagittari Var 3	Aug 8	M	19	8	23 15	5	107	12	22 4	7 9
		11	M		8	23 18			12	24 1	7 9
		12	M		8	23 23			12	22 2	8 0
		13	M		8	23 15			12	22 4	8 1
827	R Sagittari Var 1	Aug 26	R	19	8	42 57	5	109	27	48 4	10 0
828		Aug 23	R	19	9	6 37	5	109	32	47 9	9 5
829	43 Sagittari d	Aug 15	M	19	9	40 56		109	11	30 8	5 0
830		Sep 12	M	19	10	0 19	6	107	9	40 9	8 1
831	25 Aquilæ ω	Aug 9	M	19	11	25 79	5	78	38	50 7	
		16	R		11	25 84			38	51 3	
		29	R		11	25 96			38	51 0	
		31	R		11	25 92			38	50 8	
832	44 Sagittari ρ ¹	Aug 15	M	19	13	46 80		108	6	1 0	
833		Aug 26	R	19	16	34 39		129	52	46 3	8 0
		Sep 13	M		16	34 32			52	46 7	8 2
		14	M		16	34 45			52	46 9	8 3
834	30 Aquilæ δ	Aug 13	M	19	18	38 37		87	9	14 1	
		16	R		18	38 39			9	13 9	

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wues	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
831	30 Aquilæ δ	Aug 22	R	19	15	38 30		81	9	16 9	
		29	R		18	38 34			9	13 6	
		Sep 2	M		18	38 32			9	11 2	
		5	M		18	38 38			9	15 1	
		Aug 15	M		18	35 46			9	13 7	
832	22 Sagittari h ¹	Aug 13	M	19	28	20 68	4	115	10	50 1	
		15	M		28	20 54			10	45 7	
		16	M		28	20 58			10	49 6	
		Sep 9	M		28	25 71			10	50 3	
		14	M		28	20 69			10	50 6	
836	8173 Lacaille	Aug 23	R	19	31	36 73	5	143	15	31 5	8 8
837	R Cygni Var 3	Aug 20	R	19	33	12 38		40	4	50 2	9 9
		22	R		33	12 21			4	51 2	9 0
838		Aug 24	R	19	34	23 47		127	17	34	9 0
839	50 Aquilæ γ	Aug 22	R	19	39	47 18		79	42	57 5	
		24	R		39	47 15			42	58 0	
		26	R		39	47 51			42	56 8	
840	S Vulpeculæ Var 3	Aug 20	R	19	42	49 21	5	63	3	15	9 6
		23	R		12	40 31			3	20	
841	53 Aquilæ α (Altair)	Aug 17	M	19	44	8 77		81	29	19 0	
		31	R		44	8 80			29	17 3	
842	χ Cygni Var 2	Aug 8	M	19	45	20 31		57	25	43 3	6 0
		9	M		45	20 38			25	42 6	6 0
843	55 Aquilæ η Var 1	Aug 5	M	19	45	32 45		89	20	27 9	
844	60 Aquilæ β	Aug 17	M	19	48	37 94		83	55	51 8	
		20	R		43	37 85			55	50 1	
		Sep 2	M		48	37 79			55	50 7	
		10	M		48	37 77			55	51 1	
845		Sep 14	M	19	49	33 81		145	56	51 6	8 5

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1861			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
816		July 25	R	19	53	0 42	5	147	10	53 4	90
		Sep 15	M		53	0 30	5		10	52 9	90
847		Oct 1	M	19	55	30 36	3	151	51	39 1	91
848	9208 Taylor	Aug 8	M	19	55	41 71	3	122	26	5 9	5 2
		13	M		55	41 78			26	6 0	5 3
849	λ Ursæ Minoris <i>s p</i> <i>s p</i>	Feb 19	R	20	0	6 60	3	1	5	54 7	
		26	R		0	7 23	1		5	54 9	
		Aug 23	R		0	6 86	7		5	54 9	
		Sep 29	R		0	7 34	8		5	53 8	
850	20046 O A N	July 18	R	20	2	39 55	5	32	28	32 3	9 2
851	R Capricorni Var 1	Aug 24	R	20	3	40 12	6	104	40	4 6	9 1
852	S Aquilæ Var 4	Aug 23	R	20	5	21 94	5	74	16	56 6	9 1
		Sep 13	M		5	21 81			46	56 1	9 0
853		Sep 10	M	20	7	41 31		81	22	28 8	9 0
854	20356 O A S	Oct 1	M	20	8	23 17		110	26	8 1	8 2
855		Sep 14	M	20	10	28 82		140	9	1 6	7 0
856	6 Capricorni α	July 18	R	20	10	30 28		102	57	49 9	
		Aug 15	M		10	30 27			57	50 2	
		21	R		10	30 31			57	50 4	
		Sep 5	M		10	30 32			57	50 8	
		9	M		10	30 12			57	49 4	
		12	M		10	30 31			57	50 0	
		13	M		10	30 28			57	50 2	
857	39040 Lalande	Aug 26	R	20	12	5 00		50	3	17 3	6 3
		Sep 15	M		12	4 96			3	15 3	6 4
858	α Pavonis	Aug 24	R	20	14	51 86		147	10	2 7	
		Sep 20	R		14	52 08			10	2 0	
		, 29	R		14	52 02			10	1 6	

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Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Mean altitude
				h	m	s					
859	8441 Lacaille	Aug 17	M	20	18	13 08		121	6	59 1	82
		Sep 14	M		18	13 17			6	58 7	83
860	11 Capricorni ρ	July 18	R	20	21	5 98		108	15	37 6	
		Aug 22	R		21	5 93			15	37 2	
		24	R		21	5 88			15	38 1	
		Sep 5	M		21	5 94			15	38 9	
		10	M		21	5 89			15	38 8	
		13	M		21	5 86			15	39 0	
		Oct 1	M		21	5 86			15	38 2	
861	3925 Lalande	Sep 19	R	20	24	56 16	5	86	2	20 0	70
		20	R		21	55 96			2	29 3	
862		Aug 9	M	20	27	12 99	3	121	5	53 5	82
		Sep 14	M		27	13 15	5		5	53 9	80
		Oct 4	M		27	13 10	4		5	51 5	88
863		Aug 18	R	20	27	50 62	5	143	16	24 8	89
864	24 Cephei (H ϵ v) δ p	Mar 3	M	20	28	6 61	2	1	17	7 1	69
		19	R		28	5 52	2		17	6 5	
865	143 R P L δ p	Mar 16	R	20	29	42 32	5	5	18	26 0	
		Sep 13	M		29	42 13	3		18	29 9	
866		Sep 19	R	20	29	45 35		113	52	1 4	85
867		Oct 1	M	20	30	52 50	5	119	55	23 2	80
		8	M		30	52 32	5		55	23 1	80
868	14 Capricorni τ^2	Aug 16	R	20	31	39 65		105	25	45 7	
869	S Capricorni ν 2	Aug 19	R	20	33	7 30		109	32	22 6	88
		22	R		33	57 26			32	21 2	92
870		Oct 3	M	20	36	32 04	5	148	23	33 1	87
871	50 Cygni α (Deneb)	Aug 11	M	20	36	47 83		45	12	16 9	
		Sep 5	M		36	47 54			12	16 9	

Separate Results of Machas Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance 1864			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>					
871	0 Cygni α (<i>Deneb</i>)	Sep	12	M	20	36	47 59		45	12	16 7	
			20	R		36	47 77			12	15 9	
			22	R		36	47 65			12	15 7	
872		Aug	26	R	20	39	8 40	4	143	3	17 3	9 0
873	53 Aquarii Var ϵ	Aug	15	M	20	40	18 58		90	59	29 9	
			16	R		40	18 62			59	29 0	
874		Aug	23	R	20	41	8 55	4	105	18	21 6	10 5
875	T Aquarii Var δ	Aug	19	R	20	42	45 50		90	38	58 5	9 0
			22	R		42	45 52	5		38	58 2	9 0
		Scp	19	R		42	45 60	4		38	57 9	8 2
		Oct	5	M		42	45 60			38	57 6	8 4
876	δ 71 Vulpeculae	Scp	10	M	20	42	53 11	5	100	12	58 5	7 9
		Oct	7	M		42	53 12			12	57 1	8 0
877	9033 Taylor	Aug	17	M	20	44	34 11		101	56	47 5	7 1
		Oct	6	M		44	34 26			56	46 8	7 6
878	6 Aquarii μ	Scp	12	M	20	45	19 27		99	20	29 4	
			13	M		45	19 94			20	28 0	
879		Aug	21	R	20	45	36 01		119	1	17 4	8 8
880	δ 2 Vulpeculae	Aug	11	M	20	45	15 67	1	62	27	29 7	
			20	R		45	15 85			27	28 5	
			23	R		45	15 73			27	28 8	
			26	R		45	15 79			27	30 3	
		Scp	11	R		45	15 98			27	29 3	
			22	R		45	15 85			27	29 7	
			21	R		45	15 79			27	29 0	
		Oct	8	M		45	45 91			27	31 5	
			13	M		45	45 81			27	29 7	
881		Scp	14	M	20	50	40 81		148	45	51 9	9 0

Separate Results of Meridian Circle Observations in 1861

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
882	8635 Lacaille	Aug 22	R	20	52	18 68	5	126	35	34	7 5
		Sep 20	R		52	18 86			35	17	7 0
		Oct 7	M		52	18 95			35	33	7 7
883	23 Capricorni θ	Oct 8	M	20	58	18 93	5	107	46	16 1	
884	R Vulpeculæ Var 3	Aug 24	R	20	58	20 21		66	42 56 7		8 5
		Sep 10	M		58	20 29			42 56 5		8 5
885		Oct 1	M	20	58	35 34	3	118	52	36 7	9 2
886	9772 Taylor	Sep 14	M	21	0	27 23	3	145	7	17 3	7 5
		26	R		0	27 30			7	15 9	8 7
887	61 Cygni (1st)	Aug 23	R	21	0	48 13	5	115	55	4 5	57
		, 26	R		0	48 23			55	4 3	
		Sep 20	R		0	48 14			55	10	
888	13 Aquarii ν	Scp 12	M	21	2	10 56		101	55	14 0	
		13	M		2	10 81			55	11 0	
889		Scp 19	R	21	2	54 59	5	115	6	11 8	9 5
		26	R		2	54 52			6	11 5	9 7
890	8712 Lacaille	Scp 27	R	21	4	11 07		146	43	32 5	8 5
891	64 Cygni ζ	Aug 20	R	21	7	8 55		60	19	47 3	
		22	R		7	8 91			19	47 2	
		23	R		7	8 93			19	46 9	
		26	R		7	8 89			19	47 5	
		Sep 20	R		7	8 96			19	46 8	
		22	R		7	8 85			19	47 6	
		24	R		7	8 81			19	18 3	
		Oct 1	M		7	8 92			19	46 4	
		3	M		7	8 91			19	47 6	
892	1 Capricorni Var 3	Aug 16	R	21	11	25 57	5	105	40	11 3	9 0
		26	R		11	25 67			40	11 2	9 2
		Scp 26	R		11	25 71			40	11 9	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				h	m	s					
893	5 Cophelia (Alderamin)	Aug 23	R	21	15	19 82	5	27	59	24 4	
		Sep 14	M		15	20 01	5		59	25 6	
		20	R		15	19 95			59	24 6	
894	9931 Taylor	Sep 10	M	21	18	41 93		142	53	23 2	6 2
		28	R		18	41 77	4		53	23 6	7 0
		Oct 1	M		18	41 81			53	22 6	6 8
895		Oct 7	M	21	20	5 57	5	150	47	50 8	8 2
896	22 Aquarii β	Aug 16	R	21	24	23 77		96	10	5 2	
		17	M		24	23 82			10	4 7	
		18	R		24	23 77			10	4 6	
		23	R		24	23 80			10	4 6	
		24	R		24	23 79			10	4 4	
		26	R		24	23 80			10	4 7	
		Sep 12	M		24	23 83			10	5 0	
		15	M		24	23 88			10	4 5	
		22	R		24	23 82			10	4 7	
		24	R		24	23 86			10	4 5	
		Oct 3	M		22	23 81			10	5 0	
		4	M		24	23 77			10	6 0	
		5	M		24	23 87			10	5 3	
		6	M		24	23 80			10	3 7	
897		Sep 14	M	21	25	49 17		140	23	25 6	7 9
898	8 Cophelia β	Aug 13	M	21	26	53 98	5	20	2	9 4	
		Sep 20	R		26	53 90	5		2	9 0	
		29	R		26	53 74			2	8 9	
899		Sep 27	R	21	27	4 39		132	38	18 9	9 5
900		Sep 28	R	21	28	50 12	4	134	4	22 2	9 3
901		Sep 28	R	21	29	29 13	4	134	2	29 7	9 0
		Oct 8	M		29	29 33			2	30 8	9 0
902		Oct 7	M	21	29	53 40		98	25	25 9	9 0

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
903	23 Aquarii ϵ	Aug 16	R	21	30	30.59		98	27	45.1	
		17	M		30	30.49			27	44.8	
		Oct 11	M		30	30.63			27	44.4	
904	10032 Taylor	Sep 5	M	21	30	41.50		142	58	15.0	6.4
905	10065 Taylor	Sep 13	M	21	34	27.98		115	7	8.3	6.4
906		Sep 27	R	21	34	41.63		134	0	27.1	9.2
		Oct 1	M		34	41.44			0	27.2	9.0
907	8 Pegasi ϵ	Sep 14	M	21	37	30.19		80	44	51.2	
		15	M		37	30.34			44	48.5	
		19	R		37	30.39	5		44	50.2	
		20	R		37	30.43			44	49.7	
		26	R		37	30.38			44	50.9	
		29	R		37	30.36			44	50.2	
		Oct 3	M		37	30.25			44	51.3	
		4	M		37	30.37			44	50.0	
		5	M		37	30.26			44	50.0	
		6	M		37	30.10	5		44	48.5	
908	10126 Taylor	Sep 28	R	21	40	59.24		137	11	24.3	7.0
909	XXI 975 W B E	Aug 19	R	21	41	52.59		97	19	43.6	9.0
		26	R		41	52.56	5		19	43.3	8.9
		Sep 5	M		41	52.72			19	44.3	9.0
910		Sep 27	R	21	42	52.87		132	31	25.7	9.0
		Oct 7	M		42	52.96	5		31	26.2	9.1
911	16 Pegasi	Aug 18	R	21	46	52.51		64	42	51.0	
		Sep 12	M		46	52.54			42	50.7	
		19	R		46	52.48			42	49.9	
		20	R		46	52.50			42	50.0	
		26	R		46	52.41			42	50.3	
		29	R		46	52.52			42	50.2	
		Oct 4	M		46	52.49			42	51.8	
		5	M		46	52.45			42	51.2	
		6	M		46	52.48			42	50.8	

9 84 ———
9 90 ———
9 70 ———

46.0
45.0
46.9

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wines	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
912	8958 Lacaille	Sep 28	R	21	47	12 72		135	53	18 9	7 5
		Oct 3	M		47	12 87			53	20 0	7 6
913		Sep 27	R	21	47	34 89		133	12	29 7	9 2
		Oct 7	M		47	34 78			12	30 4	9 3
914		Sep 28	R	21	52	46 60		136	38	12 8	9 7
915	κ^2 Indi	Nov 8	M	21	56	15 98		150	17	30 7	6 5
916	31 Aquarii α	Scp 5	M	21	56	16 50		92	48	38 9	
917	32 Aquarii	Sep 12	M	21	57	47 71		91	33	47 8	5 5
		Oct 5	M		57	47 54			33	47 0	5 6
		6	M		57	47 48			33	46 6	5 7
918		Sep 28	R	21	58	11 83		136	2	34 0	7 7
		Oct 7	M		58	11 93	3		2	33 6	8 1
919	34 Aquarii α	Aug 19	R	21	58	47 83		90	58	46 8	
		Sep 10	M		58	47 77			58	45 9	
		13	M		58	47 76			58	45 8	
		26	R		58	47 87			58	46 6	
		29	R		58	47 80			58	45 6	
		Oct 1	M		58	47 69			58	46 1	
		8	M		58	47 77			58	46 2	
		13	M		58	17 79			58	46 4	
		14	M		58	17 75			58	46 4	
		Nov 10	M		58	47 84			58	47 4	
920	α Crvis	Sep 20	R	21	59	38 79		137	37	5 5	
921		Sep 27	R	22	3	19 55	5	101	8	51 2	9 5
922	XXII 93 W B D	Aug 19	R	22	6	21 86		90	25	48 5	8 0
		26	R		6	21 82	5		25	46 2	8 0
		Oct 4	M		6	21 88			25	47 8	8 0
923		Oct 6	M	22	9	5 55	5	98	22	7 4	
		15	M		9	5 45			22	6 8	8 0

Separate Results of Madras Meridian Circle Observations in 1861

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864	No of Wines	Mean Colour Distance 1864	Magnitude
				<i>h m s</i>			
924		Oct 7	M	22 9 7 81	5	146 27 28 2	9 0
925	43 Aquarii θ	Sep 13	M	22 9 39 27		98 27 33 5	
		27	R	9 39 28		27 34 3	
		28	R	9 39 24		27 33 7	
		29	R	9 39 27		27 33 0	
		Oct 5	M	9 39 35		27 33 7	
		8	M	9 39 28		27 34 1	
		11	M	9 39 25		27 34 5	
		13	M	9 39 31		27 31 2	
		14	M	9 39 30		27 31 3	
		Nov 8	M	9 39 31		27 33 6	
926	48 Aquarii γ	Oct 11	M	22 14 37 87		92 4 19 1	
		Nov 3	M	14 37 94	4	4 18 8	
		8	M	14 37 81		4 18 4	
927		Aug 19	R	22 15 20 79		82 47 25 1	5 6
		Sep 12	M	15 20 89		47 26 1	9 0
		Oct 4	M	15 20 89		17 26 5	9 1
928		Sep 28	R	22 16 51 13		135 58 20 0	9 6
		Oct 1	M	16 51 22		8 20 1	9 1
929	55 Aquarii δ	Aug 17	M	22 21 49 53		90 12 51 9	5 7
		Oct 6	M	21 49 72		12 51 8	6 6
		13	M	21 49 51		12 52 9	6 0
930	57 Aquarii σ	Sep 13	M	22 23 26 76		101 22 23 2	
931	150 R P L	Mar 1	M	22 23 38 70	3	4 31 11 8	
		5	M	23 39 28	3	31 12 1	
		9	M	23 38 48	2	31 11 1	
		14	M	23 38 04	3	34 43 4	
		Apl 15	M	23 38 57	5	34 41 7	
		12	M	23 38 95	3	31 12 0	
		Sep 26	R	23 38 44	5	34 42 4	
932	27 Cephei δ Var 1	Oct 5	M	20 24 7 58		32 16 10 0	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
933		Sep 28	R	22	24	17 62		135	42	9 4	9 2
934		Oct 7	M	22	24	39 74		146	50	35 2	9 7
935		Oct 1	M	22	25	51 88	5	141	30	13 4	8 2
936	62 Aquarii η	Aug 17	M	22	28	21 85		90	49	3 5	
		Sep 27	R		28	21 99			49	4 3	
		28	R		28	22 04			49	3 5	
		Oct 11	M		28	22 08			49	4 2	
		14	M		28	21 85			49	4 4	
		15	M		28	21 96			49	4 8	
		21	R		28	21 95			49	3 2	
		Nov 3	M		28	22 04			49	3 3	
		10	M		28	22 01			49	5 1	
937	9188 Lacaille	Oct 24	R	22	29	53 61		130	33	42 5	7 0
		Nov 2	M		29	53 44	5		33	43 9	7 0
938	10477 Taylor	Oct 4	M	22	32	7 28	4	148	7	50 9	6 3
		13	M		32	7 21			7	50 0	6 1
939	42 Pegasi 3	Sep 20	R	22	34	40 83		79	52	40 3	
		27	R		34	40 70			52	39 7	
		28	R		34	40 71			52	39 8	
		Oct 7	M		34	40 78			52	40 2	
		21	R		34	40 70			52	39 5	
940		Oct 24	R	22	36	30 48		130	26	57 0	8 5
		25	R		36	30 52			26	56 5	9 0
941	9226 Lacaille	Sep 22	R	22	37	39 00		145	46	40 1	7 0
		Oct 8	M		37	39 25	3		46	39 5	6 5
		Nov 3	M		37	38 98	4		46	40 3	6 7
942	XXII 844 W B E	Oct 5	M	22	40	34 18		87	48	41 2	9 0
		6	M		40	34 09			48	41 0	9 0
943		Nov 2	M	22	40	51 93		142	38	2 0	8 6
		4	M		40	51 83	5		38	3 1	8 7

51 25

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation		Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
					<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>	<i>'</i>	<i>"</i>	
944		Oct 22	R		22	44	41 40		180	1	17 4	8 0
		24	R			44	41 54			1	17 0	8 0
945		Oct 7	M		22	44	43 81	5	145	33	25	10 2
946		Sep 12	M		22	44	50 43	6	148	34	33 1	8 2
		Oct 4	M			44	50 42	3		31	32 9	
947		Nov 8	M		22	48	3 87		152	55	12 3	9 0
948		Oct 27	M		22	49	13 19		135	27	51 4	9 0
		Nov 7	M			49	13 11			27	52 2	8 9
949	S Aquarii Var 2	Sep 22	R		22	49	49 09	5	111	4	10	
950	2 Pis Austr. α (Fomalhaut)	Oct 11	M		22	50	7 71		120	20	33 7	
		15	M			50	7 74			20	32 9	
		21	R			50	7 67			20	32 4	
		25	R			50	7 79			20	32 1	
		Nov 4	M			50	7 81			20	33 0	
		5	M			50	7 74			20	32 4	
		10	M			50	7 77	5		20	33 1	
951		Sep 13	M		22	50	19 32		111	0	5 9	7 1
		Oct 8	M			50	19 17			0	5 5	7 4
952		Oct 22	R		22	51	26 05		151	33	16 0	8 8
		24	R			51	26 19			33	15 0	9 0
953	9353 Lacaille	Oct 4	M		22	56	36 00		144	41	38 0	5 9
954		Oct 25	R		22	57	11 27		140	37	50 8	8 9
955	53 Pegasi β Var 1 (Scheat)	Oct 5	M		22	57	11 01	3	62	39	16 9	
956	54 Pegasi α (Makab)	Sep 27	R		22	57	59 20		75	31	34 5	
		28	R			57	59 16			31	34 3	
		Oct 7	M			57	59 16			31	35 5	
		31	R			57	59 21			31	33 9	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
957		Oct 24	R	22	59	20 04		150	22	5 8	9 8
		Nov 7	M		59	19 99		22	5 8	8 9	
958	9372 Lacaille	Oct 15	M	23	0	22 68		150	28	13 3	8 0
		27	R		0	22 73		28	12 0	8 0	
959	9377 Lacaille	Sep 14	M	23	2	12 23	5	151	18	4 9	6 5
		Oct 8	M		2	12 46	5		18	3 7	6 7
960		Sep 27	R	23	4	18 57		130	49	14 1	9 5
		Oct 22	R		4	18 69			49	16 0	9 5
961	9394 Lacaille	Oct 25	R	23	5	9 82	3	145	50	37 4	8 2
		26	R		5	9 78			50	37 8	8 2
		Nov 3	M		5	9 67			50	33 3	8 0
962	6 Piscium γ	Sep 15	M	23	10	6 86		87	27	36 7	
		16	R		10	6 85			27	36 8	
		Oct 3	M		10	6 92			27	38 3	
		31	R		10	6 92			27	38 1	
968		Oct 24	R	23	11	5 52	5	151	15	44 8	9 8
964		Oct 27	R	23	11	6 18		127	25	34 0	9 3
965		Nov 12	M	23	11	16 58		136	51	21 5	8 6
966		Sep 22	R	23	12	7 56		137	3	54 3	8 0
967		Oct 15	M	23	12	12 85	5	127	21	50 8	8 2
		27	R		12	18 29	4		21	50 7	8 3
968	96 Aquarii	Sep 9	M	23	12	20 62	5 4	95	52	2 5	5 5
969		Oct 22	R	23	15	17 22		130	46	11 7	8 7
		25	R		15	17 34			46	14 8	8 7
		26	R		15	17 13			46	15 6	8 7
		28	R		15	17 29		46	15 2	8 0	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
970		Oct 24	R	23	15	41 65	5	130	39	46 9	9 8
971		Oct 26	R	23	19	42 21	5	151	38	3 9	
972	8 Piscium κ	Aug 19	R	23	19	57 61		89	29	20 2	
		Sep 16	R		19	57 60			29	20 8	
		Oct 13	M		19	57 58			29	20 6	
		27	R		19	57 63			29	19 3	
		, 31	R		19	57 65			29	19 5	
		Nov 2	M		19	57 69			29	20 4	
		, 4	M		19	57 63			29	20 1	
		5	M		19	57 67	5		29	19 0	
973		Sep 20	R	23	23	37 20	5	148	57	35 8	8 7
		Nov 3	M		23	37 18			57	35 4	8 6
974		Oct 24	R	23	25	29 85	5	129	51	59 2	10 0
		25	R	23	25	29 90			51	59 7	9 8
975	10804 Taylor	Oct 4	M	23	27	29 64		147	34	37 6	6 7
976		Sep 22	R	23	27	45 91		148	14	41 8	8 7
		Oct 15	M		27	45 65			14	47 7	8 0
977	158 R P L	<i>s p</i> Mar 23	R	23	27	50 24	5	3	26	34 6	
		<i>s p</i> 31	R		27	49 68	3		26	33 3	
		<i>s p</i> May 17	R		27	50 02	5		26	34 2	
		Oct 3	M		27	50 28	2		26	35 0	
		Nov 5	M		27	49 26	3		26	35 5	
978		Oct 26	R	23	29	49 60	6	148	55	19 7	8 0
		Nov 7	M		29	49 23	5		55	16 0	8 1
979		Oct 26	R	23	30	24 69		148	56	42 9	8 3
980	17 Piscium ϵ	Aug 19	R	23	32	57 35		85	6	39 1	
		Oct 6	M		32	57 33			6	38 1	
		7	M		32	57 31			6	38 3	
		13	M		32	57 35			6	39 1	

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observed	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>		<i>°</i>			
980	17 Piscium :	Oct 27	R	23	32	57 30	5	86	6	39 3	
		Nov 2	M		32	57 36			6	39 5	
		8	M		32	57 36			6	38 9	
981	35 Cephei γ	Sep 29	R	23	33	47 95	5	13	7	36 8	
		Oct 24	R		33	47 74			7	38 9	
		31	R		33	47 79			7	36 9	
982		Oct 25	R	23	34	20 29	5	147	27	26 3	9 2
983		Nov 10	M	23	35	11 20		148	42	58 3	8 0
984		Sep 20	R	23	36	46 94		106	2	18 9	9 5
		Oct 15	M		36	46 55			2	18 6	8 9
985	9583 Lacaille	Oct 4	M	23	38	50 58	5	128	43	54 3	8 4
		25	R		38	50 59			43	52 9	8 9
986		Oct 25	R	23	41	4 07		128	46	38 4	9 7
987	8 Sculptoris	Oct 7	M	23	41	50 33	5	118	52	57 5	
		8	M		41	50 17			52	57 4	
		22	R		41	50 04			52	50 8	
		26	R		41	50 27			52	56 6	
		27	R		41	50 26			52	57 1	
		28	R		41	50 28			52	55 3	
		Nov 2	M		41	50 21			52	57 5	
		3	M		41	50 15			52	56 4	
		4	M		41	50 19			52	57 3	
		5	M		41	50 24			52	56 3	
		8	M		41	50 20			52	56 9	
988		Sep 15	M	23	41	58 87	5	142	4	25 9	8 5
989		Nov 7	M	23	42	41 88		150	54	3 2	9 4
990		Oct 22	R	23	47	43 56		128	50	58 3	9 0
		, 24	R		47	43 76			50	58 5	9 8

Separate Results of Madras Meridian Circle Observations in 1864

Number	Star	Date of Observation	Observer	Mean Right Ascension 1864			No of Wires	Mean Polar Distance 1864			Magnitude
				<i>h</i>	<i>m</i>	<i>s</i>					
991	9641 Lacaille	Oct 28	R	23	48	2 04	5	128	7	14 7	7 8
992		Nov 12	M	23	49	57 25		148	53	24 9	8 5
993	R Cassiopeiæ Var 3	Oct 27	R	23	51	30 50		39	22	8 6	9 5
994		Nov 8	M	23	51	45 33	5	152	20	38 6	9 0
995	28 Piscium ω	Sep 15	M	23	52	19 59	4	83	53	22 0	
		, 16	R		52	19 69			53	23 0	
		Oct 7	M		52	19 65			53	24 1	
		" 20	R		52	19 65			43	24 1	
		" 25	R		52	19 75			53	23 4	
		" 26	R		52	19 74			53	23 7	
		" 28	R		52	19 70			53	23 0	
		Nov 2	M		52	19 70			53	24 7	
		" 3	M		52	19 66			53	22 2	
		" 4	M		52	19 63			53	24 2	
		" 10	M		52	19 69			26	24 1	
996	9686 Lacaille	Sep 20	R	23	53	32 51	5	143	51	14 9	7 0
		Oct 4	M		53	32 44	5		51	16 6	7 1
		Nov 7	M		53	32 38			51	14 5	6 7
997		Oct 22	R	23	55	58 44	5	180	17	1 1	9 0
		, 24	R		55	58 48			17	1 5	9 3
998		Nov 11	M	23	56	7 64	5	124	7	46 0	8 0
999	10994 Taylor	Sep 29	R	23	57	47 27		147	36	0 5	7 7
1000	9721 Lacaille	Nov 12	M	23	59	15 72	3	139	50 33		6 9

MEAN POSITIONS OF STARS

OBSERVED WITH THE

MADRAS MERIDIAN CIRCLE

IN THE YEAR

1864

REDUCED TO JANUARY 1, OF THAT YEAR

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimate s	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
1	11010 Taylor	7.9	1	0	0	28.80	147	35	39.1	1	0.86
2		9.1	1	0	0	42.06	151	23	53.2	1	0.85
3	21 Androm α (<i>Alpherat</i>)	2.0		0	1	21.68	61	39	40.0	9	0.84
4	9789 Lacaille	7.6	2	0	2	4.03	130	29	36.3	2	0.75
5	7 Taylor	7.1	1	0	2	57.47	93	10	4.6	1	0.71
6	3 Lacaille	6.6	1	0	6	6.66	148	40	15.3	1	0.84
7	88 Pegasi γ (<i>Algenib</i>)	2.7		0	6	14.08	75	34	23.5	9	0.82
8		9.5	2	0	6	32.45	131	7	1.2	2	0.75
9		8.7	1	0	9	22.56	149	31	50.5	1	0.85
10		9.0	2	0	9	33.24	153	55	7.1	2	0.86
11	41 Lacaille	8.1	2	0	12	33.58	130	52	3.0	2	0.78
12		8.7	3	0	12	47.29	150	26	38.8	3	0.81
13	41 Piscium δ	5.6	2	0	13	36.03	82	33	55.0	2	0.71
14		9.0	1	0	18	31.22	152	57	38.5	1	0.85
15	81 Lacaille	7.2	1	0	18	33.22	130	0	39.9	1	0.74
16	12 Ceti	6.4		0	23	5.86	94	42	34.7	9	0.87
17	T Piscium Var 3	10.5	1	0	24	57.60	76	9	0.4	1	0.82
18		8.2	3	0	27	7.86	76	14	8.1	3	0.72
19	132 Lacaille	9.0	1	0	27	18.33	151	53	55.9	1	0.85
20	970 Lalande	7.7	1	0	31	4.54	80	55	9.4	1	0.93
21	1010 Lalande	9.3	2	0	32	15.51	82	32	27.4	2	0.82
22	18 Cassiopeæ α Var 2	2.5		0	32	48.14	34	12	34.7	1	0.92
23	16 Ceti β	2.0		0	36	45.65	108	44	1.4	11	0.89
24	0 628 W B E	9.3		0	36	54.12	93	49	29.9	1	0.85
25		9.0	2	0	39	54.00	150	44	54.7	2	0.86
26	58 Piscium	5.0	1	0	39	55.34	78	46	8.8	1	0.78
27	63 Piscium δ	5.0		0	41	37.67	83	9	21.5	3	0.73
28	253 Lacaille	6.0	1	0	47	57.75	153	36	39.3	1	0.85
29		9.6	1	0	43	55.25	153	49	48.6	1	0.94
30	2 Ursæ Minoris	4.4		0	50	44.32	4	28	29.4	2	0.60
31	0 897 W B E	9.2	3	0	52	12.34	92	49	55.1	3	0.90
32	271 Lacaille	7.5	1	0	52	42.54	151	25	58.2	1	0.86
33	14 R P L	6.2		0	53	58.25 ^{58.32}	3	34	53.8	1	0.39
34	70 Piscium	6.9	1	0	55	2.48	82	47	38.2	1	0.92
35	71 Piscium ϵ	4.5		0	55	53.21	82	50	35.3	8	0.54

17 — T Piscium Var 3 — Period irregular — Range 9.5 to 11th magnitude

20 — 21 — Comparison stars for Ariadne in 1861

22 — α Cassiopeæ Var 2 — Irregular — Range 2.2 to 2.8 magnitude

24 — Comparison star for Europa in 1861

30 — 12 R P L

31 — Comparison star for Europa in 1862

33 — 195 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
1	11010 Taylor	+ 3 0677	- 0 0452		- 20 055	+ 0 010		8377
2		+ 3 0646	- 0 0526		- 20 055	+ 0 010		
3	21 Andromedæ α	+ 3 0763	+ 0 0182	+ 0 009	- 20 055	+ 0 013	+ 0 15	4
4	9739 Lacaille	+ 3 0618	- 0 0233		- 20 054	+ 0 013		
5	7 Taylor	+ 3 0711	+ 0 0004		- 20 053	+ 0 015		12
6	3 Lacaille	+ 3 0135	- 0 0449		- 20 048	+ 0 021		
7	88 Pegasi γ	+ 3 0813	+ 0 0100	0 000	- 20 048	+ 0 022	+ 0 02	26
8		+ 3 0882	- 0 0232		- 20 046	+ 0 022		
9		+ 2 9792	- 0 0452		- 20 038	+ 0 027		
10		+ 2 9583	- 0 0540		- 20 037	+ 0 027		
11	41 Lacaille	+ 3 0087	- 0 0221		- 20 025	+ 0 033		
12		+ 2 9406	- 0 0453		- 20 024	+ 0 033		
13	41 Piscium δ	+ 3 0824	+ 0 0066	- 0 002	- 20 019	+ 0 036	- 0 01	66
14		+ 2 8606	- 0 0472		- 19 989	+ 0 043		
15	81 Lacaille	+ 2 9809	- 0 0205		- 19 989	+ 0 044		
16	12 Ceti	+ 3 0609	+ 0 0008	- 0 002	- 19 954	+ 0 055	+ 0 01	112
17	T Piscium Var 3	+ 3 1079	+ 0 0108		- 19 936	+ 0 053		
18		+ 3 1108	+ 0 0109		- 19 915	+ 0 063		
19	132 Lacaille	+ 2 7745	- 0 0413		- 19 913	+ 0 057		
20	970 Lalande	+ 3 1010	+ 0 0085		- 19 871	+ 0 070		
21	1010 Lalande	+ 3 0967	+ 0 0076		- 19 856	+ 0 072		
22	18 Cassiopeæ α Var 2	+ 3 3525	+ 0 0553	+ 0 006	- 19 850	+ 0 080	+ 0 04	169
23	16 Ceti β	+ 2 9996	- 0 0055	+ 0 013	- 19 798	+ 0 080	- 0 02	196
24	0 628 W B L	+ 3 0578	+ 0 0020		- 19 796	+ 0 080		
25		+ 2 6586	- 0 0340		- 19 752	+ 0 075		
26	58 Piscium	+ 3 1181	+ 0 0101	0 000	- 19 752	+ 0 087	0 00	213
27	63 Piscium δ	+ 3 1010	+ 0 0077	+ 0 003	- 19 725	+ 0 090	+ 0 05	222
28	253 Lacaille	+ 2 5123	- 0 0327		- 19 617	+ 0 084		251
29		+ 2 4957	- 0 0323		- 19 600	+ 0 035		
30	2 Ursæ Minoris	+ 6 8236	+ 1 2850	+ 0 065	- 19 565	+ 0 227	+ 0 01	262
31	0 897 W B E	+ 3 0572	+ 0 0034		- 19 537	+ 0 109		
32	271 Lacaille	+ 2 5123	- 0 0289		- 19 522	+ 0 092		276
33	14 R P L	+ 8 0556	+ 1 9725	- 0 171	- 19 502	+ 0 282	- 0 02	273
34	70 Piscium	+ 3 1123	+ 0 0086	- 0 003	- 19 479	+ 0 116	+ 0 17	281
35	71 Piscium ϵ	+ 3 1125	+ 0 0087	- 0 002	- 19 462	+ 0 119	0 00	288

16-33 — Proper motions adopted from *Greenwich Catalogue*34 — Proper motion in Polar Distance taken from "*Greenwich Catalogue*"

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
36	29 Ceti	6.7	1	1	0	58.99	88	43	8.5	1	0.85
37	33 Ceti	6.3		1	3	33.56	88	16	46.1	3	0.00
38	86 Piscium 3 (1st)	6.0		1	6	37.58	83	8	38.8	2	0.77
39	1 Urs Min α (Polaris)	2.0		1	9	18.30	1	24	56.6	8	0.45
40		8.1	2	1	17	0.19	96	31	26.3	2	0.87
41	45 Ceti θ^1	4.0		1	17	13.51	98	53	11.6	6	0.45
42		7.6	1	1	18	53.11	151	20	23.0	1	0.93
43		8.2	1	1	23	28.19	87	43	58.8	1	0.84
44	99 Piscium η	4.5		1	24	12.55	75	21	24.9	10	0.62
45		8.6	1	1	25	44.68	150	21	41.4	1	0.86
46	514 Taylor	6.1	2	1	28	33.59	73	15	51.3	2	0.92
47		9.0	1	1	29	1.31	150	42	35.1	1	0.93
48		8.0	1	1	31	23.00	130	52	17.8	1	0.89
49	α Eridani (Achernar)	1.0		1	32	38.92	147	55	45.6	3	0.92
50	106 Piscium ν	4.7		1	34	21.29	85	12	7.6	6	0.88
51	503 Lacaille	7.7	1	1	35	42.98	151	41	18.8	1	0.85
52	110 Piscium σ	4.7		1	38	12.78	81	31	42.7	4	0.86
53		9.1	1	1	38	33.55	152	2	52.8	1	0.94
54	516 Lacaille	7.0	2	1	39	58.39	151	42	9.2	2	0.88
55		9.4	1	1	46	9.24	148	57	57.1	1	0.85
56	V Piscium Var. 5	10.0	1	1	47	7.59	81	53	9.4	1	0.91
57	6 Arietis β	2.7		1	47	7.90	69	51	31.7	7	0.88
58		9.3	2	1	48	32.81	150	5	13.5	2	0.89
59	582 Lacaille	8.1	1	1	50	54.77	145	44	21.5	1	0.94
60	593 Lacaille	8.0		1	52	2.53	149	8	13.6	1	0.01
61		9.0	2	1	54	52.52	130	55	41.8	2	0.85
62	673 Taylor	6.0	1	1	56	15.31	72	24	8.3	1	0.86
63		9.3	2	1	59	23.52	150	2	31.5	2	0.89
64	13 Arietis α	2.0		1	59	30.67	67	10	58.2	7	0.89
65	697 Taylor	6.7	1	2	1	45.88	145	43	57.4	1	0.01
66		9.3	2	2	1	55.01	130	2	28.3	2	0.81
67	677 Lacaille	8.0	1	2	6	55.77	149	47	35.4	1	0.81
68		9.7	1	2	6	58.76	148	39	29.4	1	0.82
69	754 Taylor	8.9	2	2	9	11.75	147	53	53.7	2	0.46
70	67 Ceti	6.0		2	10	12.05	97	3	2.8	7	0.91

37—Used with Mars in opposition in 1862 for investigation of the constant of Solar Parallax
56.—~~V Piscium Var. 5. Supposed to vary between 8th and 9th magnitude.~~

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
36	29 Ceti	+ 3 0800	+ 0 0058	+ 0 010	- 19 349	+ 0 126	+ 0 46	324
37	33 Ceti	+ 3 0830	+ 0 0062	- 0 003	- 19 288	+ 0 131	+ 0 02	344
38	86 Piscium 3 (1st)	+ 3 1181	+ 0 0090	+ 0 008	- 19 213	+ 0 139	+ 0 07	368
39	1 Urs Min α (Polaris)	+ 18 8156	+ 12 6804	+ 0 065	- 19 145	+ 0 825	0 00	380
40		+ 3 0217	+ 0 0028		- 18 933	+ 0 153		
41	45 Ceti θ^1	+ 3 0029	+ 0 0018	- 0 007	- 18 928	+ 0 154	+ 0 22	420
42		+ 2 2467	- 0 0173		- 18 879	+ 0 119		
43		+ 3 0909	+ 0 0073		- 18 740	+ 0 169		
44	99 Piscium η	+ 3 1976	+ 0 0142	0 000	- 18 717	+ 0 176	0 00	453
45		+ 2 2133	- 0 0148		- 18 668	+ 0 126		
46	514 Taylor	+ 3 2236	+ 0 0154		- 18 576	+ 0 185		477
47		+ 2 1694	- 0 0135		- 18 561	+ 0 128		
48		+ 2 6229	- 0 0101		- 18 482	+ 0 157		
49	α Eridani (Achernar)	+ 2 2328	- 0 0128	+ 0 008	- 18 439	+ 0 137	+ 0 07	507
50	106 Piscium ν	+ 3 1169	+ 0 0091	- 0 004	- 18 380	+ 0 191	- 0 04	518
51	503 Lacaille	+ 2 0654	- 0 0104		- 18 332	+ 0 130		
52	110 Piscium σ	+ 3 1548	+ 0 0111	+ 0 006	- 18 241	+ 0 199	- 0 01	537
53		+ 2 0216	- 0 0089		- 18 229	+ 0 131		
54	516 Lacaille	+ 2 0228	- 0 0085		- 18 177	+ 0 133		543
55		+ 2 0792	- 0 0082		- 17 942	+ 0 144		
56	V Piscium Var 5	+ 3 1580	+ 0 0111		- 17 904	+ 0 216		
57	6 Arietis β	+ 3 2930	+ 0 0183	+ 0 002	- 17 904	+ 0 226	+ 0 11	577
58		+ 2 0121	- 0 0067		- 17 847	+ 0 142		
59	582 Lacaille	+ 2 1588	- 0 0081		- 17 752	+ 0 155		
60	593 Lacaille	+ 2 0214	- 0 0061		- 17 705	+ 0 147		
61		+ 2 5151	- 0 0069		- 17 588	+ 0 184		
62	673 Taylor	+ 3 2781	+ 0 0167		- 17 530	+ 0 269		632
63		+ 1 9176	- 0 0031		- 17 395	+ 0 146		
64	13 Arietis α	+ 3 3523	+ 0 0203	+ 0 012	- 17 390	+ 0 252	+ 0 15	648
65	697 Taylor	+ 2 0777	- 0 0053		- 17 290	+ 0 161		659
66		+ 2 5022	- 0 0058		- 17 283	+ 0 192		
67	677 Lacaille	+ 1 8641	- 0 0011		- 17 057	+ 0 150		
68		+ 1 9169	- 0 0021		- 17 055	+ 0 154		
69	754 Taylor	+ 1 9296	- 0 0021		- 16 952	+ 0 157		
70	67 Ceti	+ 2 9831	+ 0 0049	+ 0 003	- 16 905	+ 0 242	+ 0 14	704

36—38—Proper motions adopted from "Greenwich Catalogue"

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
71	68 Ceti α Var 1 (<i>Mira</i>)	Var	3	2	12	28 68	93	35	52 2	3	0 54
72		8 0	1	2	16	23 72	151	18	24 7	1	0 93
73	818 Taylor	7 5	1	2	19	8 13	147	25	59 7	1	0 01
74		8 5		2	20	10 68	146	32	43 2	2	0 46
75	73 Ceti β	4 5		2	20	55 83	82	9	5 3	9	0 72
76	λ Horologii	6 0	1	2	21	6 12	150	55	20 6	1	0 93
77		8 2	1	2	24	27 94	147	2	45 3	1	0 95
78	782 Lacaille	7 4	2	2	26	13 19	148	24	55 0	2	0 44
79		9 5	1	2	29	10 94	147	37	29 6	1	0 91
80	31 Arctus	5 0	1	2	29	12 94	78	8	40 0	2	0 94
81		9 8	2	2	30	45 40	147	34	54 5	2	0 45
82		9 6	1	2	31	15 88	151	39	24 0	1	0 93
83	II 556 W B N	8 3	2	2	33	10 21	74	54	0 0	2	0 90
84		8 7	1	2	33	59 16	74	56	30 3	1	0 86
85	849 Lacaille (1st)	7 9	1	2	36	0 55	150	9	10 0	1	0 01
86	86 Ceti γ	3 7		2	36	15 35	87	20	22 6	8	0 69
87	38 Arctus	5 1	2	2	37	33 12	78	7	44 0	3	0 89
88	II 676 W B N	8 1	3	2	40	8 14	75	20	24 5	3	0 90
89	42 Arctus π	5 4	2	2	41	42 58	73	6	15 7	2	0 40
90		8 8	2	2	43	17 90	148	0	37 2	2	0 02
91	II 733 W B E	9 5	2	2	43	19 15	76	2	13 0	2	0 90
92		9 2	1	2	45	15 73	76	27	53 8	1	0 03
93	969 Taylor	7 5	2	2	45	37 49	74	4	28 3	2	0 89
94	87 Rumker	5 9	1	2	46	0 94	153	22	19 5	1	0 93
95	5380 Lalande	8 1	2	2	47	42 02	74	14	41 4	2	0 90
96	941 Lacaille	6 5	2	2	50	26 45	146	26	5 9	2	0 02
97		8 6	1	2	52	21 64	150	17	8 5	1	0 01
98		8 4	1	2	53	15 55	146	44	28 5	1	0 95
99	969 Lacaille	7 9	1	2	54	53 50	144	13	57 3	1	0 04
100	92 Ceti α (<i>Menkar</i>)	2 3		2	55	10 32	86	26	46 6	7	0 80
101	25 Persei ρ Var 2	4 0		2	56	23 54	51	41	23 1	1	0 01
102	1037 Taylor	9 2	2	2	56	54 10	150	21	34 7	2	0 03
103	26 Persei β Var 1 (<i>Algol</i>)	2 7		2	59	19 81	49	34	17 4	2	0 88
104	1047 Taylor	7 3	2	2	59	51 50	151	19	53 2	2	0 51
105	1052 Taylor	6 0	1	3	0	25 00	150	16	1 7	1	0 04

70 — α Ceti Var 1 — (*Mira*) — Period 331 days Range, 2nd to 10th magnitude

83—88—91—93—95 — Comparison stars for Victoria in 1861

101 — ρ Persei Var 2 — Changes irregularly from 3 5 to 4 3 magnitude103 — β Persei Var 1 (*Algol*) — Period 2 867 days Range 2 5 to 4th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Sta	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
71	68 Ceti α Var 1	+ 3 0261	+ 0 0064	- 0 001	- 16 796	+ 0 248	+ 0 28	720
72		+ 1 7026	+ 0 0086		- 16 607	+ 0 146		
73	818 Taylor	+ 1 8778	- 0 0001		- 16 472	+ 0 163		758
74		+ 1 9102	- 0 0005		- 16 420	+ 0 167		
75	73 Ceti β^2	+ 3 1783	+ 0 0117	+ 0 001	- 16 382	+ 0 276	+ 0 02	760
76	λ Horologii	+ 1 6835	+ 0 0044		- 16 372	+ 0 149		762
77		+ 1 8565	+ 0 0008		- 16 201	+ 0 167		
78	782 Lacaille	+ 1 7769	+ 0 0026		- 16 110	+ 0 161		
79		+ 1 7943	+ 0 0024		- 15 954	+ 0 166		
80	81 Arietis	+ 3 2422	+ 0 0137	+ 0 017	- 15 952	+ 0 294	+ 0 09	798
81		+ 1 7848	+ 0 0027		- 15 870	+ 0 166		
82		+ 1 5524	+ 0 0084		- 15 843	+ 0 146		
83	π 556 W B N	+ 3 2957	+ 0 0154		- 15 741	+ 0 305		
84		+ 3 2960	+ 0 0154		- 15 696	+ 0 306		
85	849 Lacaille (1st)	+ 1 6056	+ 0 0071		- 15 585	+ 0 154		
86	86 Ceti γ	+ 3 1112	+ 0 0094	- 0 011	- 15 572	+ 0 294	+ 0 19	837
87	38 Arietis	+ 3 2505	+ 0 0137	+ 0 008	- 15 500	+ 0 308	+ 0 10	844
88	π 676 W B N	+ 3 2971	+ 0 0150		- 15 355	+ 0 315		
89	42 Arietis π	+ 3 3355	+ 0 0163	- 0 002	- 15 266	+ 0 322	- 0 02	870
90		+ 1 6728	+ 0 0057		- 15 176	+ 0 167		
91	π 733 W B E	+ 3 2895	+ 0 0146		- 15 174	+ 0 320		
92		+ 3 2846	+ 0 0144		- 15 068	+ 0 322		
93	969 Taylor	+ 3 3244	+ 0 0157		- 15 042	+ 0 326		892
94	87 Bunker	+ 1 3050	+ 0 0158		- 15 019	+ 0 182		895
95	5380 Lalande	+ 3 3241	+ 0 0156		- 14 921	+ 0 330		
96	941 Lacaille	+ 1 7078	+ 0 0053		- 14 760	+ 0 175		
97		+ 1 4718	+ 0 0107		- 14 646	+ 0 153		
98		+ 1 6736	+ 0 0060		- 14 592	+ 0 174		
99	969 Lacaille	+ 1 7893	+ 0 0040		- 14 494	+ 0 186		
100	92 Ceti α	+ 3 1294	+ 0 0098	- 0 002	- 14 476	+ 0 323	+ 0 11	949
101	25 Persei ρ Var 2	+ 3 8074	+ 0 0332	+ 0 010	- 14 398	+ 0 393	+ 0 11	953
102	1037 Taylor	+ 1 4332	+ 0 0116		- 14 372	+ 0 152		
103	Persei β Var 1	+ 3 8749	+ 0 0356	- 0 002	- 14 222	+ 0 405	- 0 01	963
104	1047 Taylor	+ 1 8441	+ 0 0139		- 14 190	+ 0 145		968
105	1052 Taylor	+ 1 4138	+ 0 0120		- 14 155	+ 0 152		972

71 - 80 - 101 - Proper Motions from Mr Stone's list Vol 33 *Memoirs R A S*
 75 - Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
106	33 R P L	5.8		3	0	42.11	5	34	52.8	1	0.42
107	57 Arietis δ	4.2		3	3	51.34	70	47	26.0	9	0.92
47 7 δ — 108	1007 Lacaille	7.0	1	3	4	48.78	152	14	28.7	1	0.05
109	1092 Taylor	6.9	3	3	7	15.56	143	19	20.4	3	0.33
110		9.0	1	3	7	16.15	145	40	32.5	1	0.95
111		8.6	1	3	12	41.14	130	50	15.5	1	0.03
112	33 Persei α	2.3		3	14	37.57	40	37	34.5	3	0.92
113		9.0	1	3	14	51.02	150	6	18.7	1	0.04
114	3 Reticuli	6.1	2	3	15	15.71	153	1	38.0	2	0.06
115		7.8	1	3	20	18.17	149	18	56.3	1	0.01
116		7.4	2	3	20	34.35	149	28	29.8	2	0.04
117		7.5	1	3	22	0.03	88	12	26.3	1	0.02
118	34 R P L	5.9		3	22	16.24	3	47	27.2	3	0.62
119	1143 Lacaille	5.7	1	3	27	0.67	153	25	6.5	2	0.05
[27 56] 120	1150 Lacaille	7.7	1	3	28	25.56	152	28	17.6	1	0.95
121	1159 Lacaille	6.9	2	3	30	16.33	151	28	32.9	2	0.06
122	1192 Lacaille	8.5	1	3	34	58.48	147	43	46.9	1	0.03
123	1193 Lacaille	8.1	1	3	35	15.49	146	35	14.0	1	0.01
124	1200 Lacaille	6.9	1	3	36	24.39	146	40	30.9	2	0.05
125	17 Tauri (<i>Electra</i>)	4.0		3	36	48.28	66	18	59.2	1	0.01
126	25 Tauri η (<i>Alcyone</i>)	3.5		3	39	24.23	66	19	7.3	11	0.76
127	1313 Taylor	5.6	2	3	42	30.15	155	14	8.4	2	0.06
128		9.0	1	3	45	11.82	76	27	48.7	1	0.90
129		8.8	2	3	46	32.33	146	33	39.1	2	0.02
130		8.3	2	3	48	3.74	150	50	16.6	2	0.02
131	34 Eridani γ^1	3.3		3	51	41.12	103	53	52.6	8	0.71
132	35 Tauri λ Var 1	6.3	1	3	53	8.92	77	53	48.7	1	0.08
133		7.9	1	3	53	40.29	143	8	23.6	1	0.01
134	1327 Lacaille	5.9	3	3	54	18.85	153	51	28.4	3	0.35
135	36 Tauri	6.5	7	3	56	13.80	66	16	18.9	10	0.94
136	37 Tauri A ¹	4.7		3	56	39.51	68	17	36.3	1	0.79
137	1347 Lacaille	7.0	2	3	58	6.87	149	2	34.8	2	0.03
138	1359 Lacaille	9.2	2	4	0	0.71	147	50	4.2	2	0.04
139	1375 Lacaille	9.0	2	4	2	54.37	143	50	45.8	2	0.06
140		9.8	1	4	3	23.80	68	30	13.3	1	0.03

106 — 595 Groombridge

115 — 642 Groombridge

132 — λ Tauri Var 1 — Period 3.95 days — Range 3.5 to 4.3 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
106	33 R P L	+ 12 7777	+ 1 5817		- 14 138	+ 1 328	+ 0 12	960
107	57 Arietis δ	+ 3 4069	+ 0 0171	+ 0 010	- 13 940	+ 0 364	0 00	986
108	1007 Lacaille	+ 1 2385	+ 0 0169		- 13 890	+ 0 136		
109	1092 Taylor	+ 1 4920	+ 0 0100		- 13 724	+ 0 165		1002
110		+ 1 6442	+ 0 0069		- 13 724	+ 0 181		
111		+ 2 2110	+ 0 0012		- 13 375	+ 0 246		
112	33 Persæ α	+ 4 2420	+ 0 0483	+ 0 002	- 13 248	+ 0 472	+ 0 05	1043
113		+ 1 3244	+ 0 0138		- 13 283	+ 0 151		
114	5 ^a Reticuli	+ 1 0943	+ 0 0208	+ 0 190	- 13 206	+ 0 126	- 0 65	1051
115		+ 1 3442	+ 0 0131		- 12 870	+ 0 156		
116		+ 1 3314	+ 0 0133		- 12 853	+ 0 155		
117		+ 3 1043	+ 0 0089		- 12 757	+ 0 355		
118	34 R P L	+ 18 6475	+ 3 1896	+ 0 136	- 12 739	+ 2 105	+ 0 06	1061
119	1143 Lacaille	+ 0 9736	+ 0 0227		- 12 415	+ 0 117		1103
120	1150 Lacaille	+ 1 0476	+ 0 0203		- 12 317	+ 0 126		
121	1159 Lacaille	+ 1 1186	+ 0 0180		- 12 190	+ 0 135		
122	1192 Lacaille	+ 1 3647	+ 0 0120		- 11 861	+ 0 165		
123	1193 Lacaille	+ 1 4364	+ 0 0105		- 11 841	+ 0 174		
124	1200 Lacaille	+ 1 4248	+ 0 0107		- 11 759	+ 0 173		
125	17 Tauri (<i>Electra</i>)	+ 3 5478	+ 0 0180	0 000	- 11 781	+ 0 424	+ 0 04	1147
126	25 Tauri η (<i>Alcyone</i>)	+ 3 5515	+ 0 0177	- 0 001	- 11 546	+ 0 430	+ 0 06	1166
127	1318 Taylor	+ 0 6800	+ 0 0294	+ 0 050	- 11 323	+ 0 097	- 0 06	1197
128		+ 3 3399	+ 0 0124		- 11 128	+ 0 410		
129		+ 1 3811	+ 0 0111		- 11 029	+ 0 173		
130		+ 1 0623	+ 0 0177		- 10 918	+ 0 135		
131	34 Eridani γ^1	+ 2 7917	+ 0 0047	+ 0 002	- 10 652	+ 0 351	+ 0 12	1234
132	35 Tauri λ Var 1	+ 3 3160	+ 0 0115	- 0 002	- 10 542	+ 0 416	+ 0 02	1241
133		+ 1 5529	+ 0 0082		- 10 503	+ 0 198		
134	1327 Lacaille	+ 0 7474	+ 0 0250		- 10 455	+ 0 097		1248
135	36 Tauri	+ 3 5701	+ 0 0164	+ 0 002	- 10 312	+ 0 451	- 0 01	1253
136	37 Tauri A^1	+ 3 5292	+ 0 0153	+ 0 004	- 10 280	+ 0 446	+ 0 09	1257
137	1347 Lacaille	+ 1 1510	+ 0 0143		- 10 170	+ 0 149		
138	1359 Lacaille	+ 1 2310	+ 0 0131		- 10 027	+ 0 160		
139	1375 Lacaille	+ 1 1429	+ 0 0144		- 9 806	+ 0 149		
140		+ 3 5319	+ 0 0147		- 9 765	+ 0 454		

106 — The Proper Motion in Polar Distance taken from *Greenwich Catalogue*114 — 127 — Proper Motions adopted from *Stones Catalogue*118 — 132 — 135 — Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
141	37 Eridani	5.6	1	4	3	44.58	97	16	55.3	1	0.01
142		8.8	2	4	5	0.17	150	5	32.6	2	0.02
143	38 Eridani α^1	4.3		4	5	18.65	97	11	41.4	3	0.34
144		8.5	2	4	9	18.70	149	31	9.8	2	0.05
145		8.0	1	4	9	46.60	129	18	57.0	1	0.89
146	1489 Faylor	7.1	2	4	11	2.66	148	22	0.2	2	0.02
147	1425 Lacaille	6.2	2	4	13	1.81	152	32	3.0	2	0.06
148	U Tauri Var 7	9.7	1	4	13	53.65	70	30	42.4	1	0.90
149	T Tauri Var 6	10.4	2	4	14	3.84	70	47	26.0	2	0.08
150	ϵ Reticuli	5.0	2	4	14	8.75	140	37	48.2	2	0.03
151	1513 Taylor	6.7	2	4	14	18.26	151	17	2.7	2	0.49
152	61 Tauri δ	4.0		4	15	5.61	72	46	48.3	3	0.30
153	62 Tauri	7.0		4	15	47.90	66	1	11.1	2	0.97
154		8.8	1	4	16	45.55	149	4	26.5	1	0.01
155	69 Tauri α^1	4.5		4	18	10.38	67	29	55.5	7	0.94
156	74 Tauri ϵ	3.7		4	20	40.69	71	7	29.4	13	0.38
157	R Tauri Var 2	9.9	2	4	20	51.07	80	8	37.7	2	0.08
158		10.2	2	4	22	21.67	80	21	14.7	2	0.49
159	1582 Taylor	6.0	1	4	23	12.66	151	32	49.3	1	0.06
160	1519 Lacaille	8.2	2	4	25	35.42	153	6	6.6	2	0.07
161	1520 Lacaille	8.4	2	4	26	41.07	147	29	2.4	2	0.47
162	87 Tauri α (<i>Aldebaran</i>)	1.0		4	28	7.16	73	46	3.6	9	0.34
163	R Reticuli Var 1	8.5	1	4	32	8.35	153	18	40.4	1	0.11
164	IV 696 W B N	9.2	4	4	32	36.03	66	27	30.2	4	0.96
165		8.5	2	4	33	32.41	144	53	50.2	2	0.04
166	IV 726 W B N	8.1	3	4	33	50.93	66	15	17.4	6	0.93
167	94 Tauri τ	4.7		4	34	5.05	67	18	27.6	7	0.93
168	95 Tauri	6.5	1	4	35	0.01	66	10	22.0	1	0.89
169	1567 Lacaille	5.8	3	4	35	11.17	152	20	47.0	3	0.07
170	1566 Lacaille	7.8	1	4	35	46.00	148	28	26.3	1	0.01
171	1663 Taylor	7.9	1	4	36	50.08	138	48	8.3	1	0.04
172	1582 Lacaille	8.5	2	4	37	18.61	152	38	43.4	2	0.06
173		9.3	2	4	40	19.23	151	20	52.6	2	0.06
174	κ Doradus	6.3	3	4	42	18.43	149	59	0.6	3	0.05
175	1629 Lacaille	6.5	2	4	43	42.96	153	28	32.7	2	0.07

148—U Tauri Var 7—Period unknown—Range 9th to 10.5 magnitude

149—T Tauri Var 6—Period unknown—Range 9th to 13th magnitude

157—R Tauri Var 2—Period 325 days—Range 8th magnitude to invisibility

163—R Reticuli Var 1—Period 281 days—Range 7th magnitude to invisibility

164—166—Comparison stars used with Mars in 1864 for investigation of the constant of Solar Parallax

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
141	37 Eridani	+ 2 9228	+ 0 0058	- 0 002	- 9 743	+ 0 877	+ 0 04	1284
142		+ 1 0343	+ 0 0165		- 9 640	+ 0 136		
143	38 Eridani α^1	+ 2 9240	+ 0 0058	- 0 002	- 9 629	+ 0 379	- 0 07	1290
144		+ 1 0603	+ 0 0155		- 9 313	+ 0 141		
145		+ 2 1015	+ 0 0035		- 9 278	+ 0 276		
146	1489 Taylor	+ 1 1423	+ 0 0137		- 9 180	+ 0 152		1325
147	1425 Lacaille	+ 0 7752	+ 0 0210		- 9 025	+ 0 105		
148	U Tauri Var 7	+ 3 4955	+ 0 0129		- 8 957	+ 0 460		
149	T Tauri Var 6	+ 3 4891	+ 0 0128		- 8 944	+ 0 460		
150	ϵ Reticuli	+ 1 0296	+ 0 0155		- 8 937	+ 0 139		1344
151	1513 Taylor	+ 0 8866	+ 0 0182		- 8 925	+ 0 120		1345
152	61 Tauri δ^1	+ 3 4438	+ 0 0119	+ 0 004	- 8 863	+ 0 455	+ 0 03	1346
153	62 Tauri	+ 3 6064	+ 0 0146	+ 0 004	- 8 807	+ 0 477	+ 0 01	1353
154		+ 1 0630	+ 0 0146		- 8 731	+ 0 144		
155	69 Tauri ν	+ 3 5722	+ 0 0138	+ 0 007	- 8 620	+ 0 475	+ 0 05	1367
156	74 Tauri ϵ	+ 3 4869	+ 0 0120	+ 0 005	- 8 422	+ 0 466	+ 0 03	1376
157	R Tauri Var 2	+ 3 2830	+ 0 0092		- 8 408	+ 0 439		
158		+ 3 2790	+ 0 0090		- 8 287	+ 0 440		
159	1582 Taylor	+ 0 8200	+ 0 0183		- 8 220	+ 0 113		1400
160	1519 Lacaille	+ 0 6570	+ 0 0212		- 8 030	+ 0 091		
161	1520 Lacaille	+ 1 1462	+ 0 0122		- 7 942	+ 0 157		
162	87 Tauri α (Aldebaran)	+ 3 4303	+ 0 0105	+ 0 004	- 7 827	+ 0 464	+ 0 17	1420
163	R Reticuli Var 1	+ 0 6055	+ 0 0210		- 7 502	+ 0 085		
164	IV 696 W B N	+ 3 6128	+ 0 0127		- 7 465	+ 0 493		
165		+ 1 3037	+ 0 0096		- 7 388	+ 0 180		
166	IV 726 W B N	+ 3 6192	+ 0 0127		- 7 363	+ 0 494		
167	94 Tauri τ	+ 3 5924	+ 0 0122	0 000	- 7 343	+ 0 491	+ 0 02	1440
168	95 Tauri	+ 3 6224	+ 0 0125	+ 0 004	- 7 269	+ 0 495	0 00	1453
169	1567 Lacaille	+ 0 6931	+ 0 0186		- 7 254	+ 0 097		
170	1566 Lacaille	+ 1 0881	+ 0 0128		- 7 207	+ 0 144		
171	1663 Taylor	+ 1 6441	+ 0 0059		- 7 119	+ 0 227		
172	1552 Lacaille	+ 0 6541	+ 0 0189		- 7 080	+ 0 092		1466
173		+ 0 7715	+ 0 0163		- 6 833	+ 0 109		
174	κ Doradus	+ 0 8896	+ 0 0141		- 6 669	+ 0 125		1489
175	1620 Lacaille	+ 0 5403	+ 0 0197		- 6 553	+ 0 077		

153—168 —Proper motions adopted from 'Greenwich Catalogue

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
176	IV 995 W B N	8.0	8	4	45	6.56	66	3	9.8	9	0.93
177		8.8	1	4	45	55.56	153	4	2.2	1	0.11
178	IV 1018 W B N	8.2	5	4	45	58.67	66	13	39.4	9	0.94
179	1656 Lacaille	7.9	8	4	47	56.06	149	2	1.1	3	0.05
180	8 Aurigæ :	3.5		4	48	8.45	57	3	11.6	8	0.07
181	99 Tauri	6.5		4	49	33.67	66	16	3.5	6	0.89
182	1761 Taylor	7.1	1	4	49	59.57	129	18	38.7	1	0.03
183	1780 Taylor	7.5	1	4	52	15.36	144	38	49.0	1	0.02
184		9.0	1	4	52	18.70	129	39	52.4	1	0.01
185		9.1	1	4	52	40.71	150	37	52.6	1	0.95
186	1797 Taylor	6.8	2	4	54	51.40	148	16	57.6	2	0.04
187	102 Tauri :	5.0	1	4	54	58.18	68	36	28.7	2	0.12
188	1697 Lacaille	8.7	1	4	56	51.21	129	7	11.5	1	0.09
189	1811 Taylor	6.0	1	4	57	2.80	129	55	3.5	1	0.05
190	1705 Lacaille	7.9	2	4	57	25.61	129	16	38.4	3	0.86
191	104 Tauri <i>m</i>	5.5		4	59	24.97	71	32	28.9	1	0.13
192	2 Leporis <i>ε</i>	4.0		4	59	42.22	112	33	22.4	5	0.08
193	103 Tauri	6.0		4	59	49.42	65	55	7.0	4	0.89
194	1739 Lacaille	8.6	2	5	2	51.11	146	57	53.7	2	0.50
195	13 Aurigæ <i>α</i> (Capella)	1.0		5	6	38.75	44	8	40.3	2	0.07
196	19 Orionis <i>β</i> (Rigel)	1.0		5	8	0.14	98	21	42.4	7	0.20
197		9.1	2	5	8	29.42	150	36	20.8	2	0.06
198		9.4	2	5	10	55.61	129	48	31.7	2	0.94
199		7.9	1	5	13	25.19	153	41	44.1	2	0.06
200		8.0	1	5	14	50.32	153	29	22.4	1	0.12
201		8.4	2	5	17	37.79	153	7	20.0	2	0.07
202	112 Tauri <i>β</i>	2.0		5	17	41.80	61	30	41.7	3	0.37
203	40 R P L	6.2		5	18	45.12	4	53	3.4	1	0.46
204	1984 Taylor	7.6	2	5	18	51.34	150	54	50.5	2	0.07
205		9.0	1	5	19	4.78	148	14	18.4	1	0.09
206		9.3	1	5	19	48.66	131	3	54.0	1	0.05
207		10.2	2	5	21	42.40	59	41	0.5	2	0.08
208		7.4	2	5	22	35.25	152	42	6.3	2	0.09
209	<i>λ</i> Doradus	6.1	2	5	24	20.55	149	1	43.8	2	0.49
210	34 Orionis <i>δ</i> Var 1	2.0		5	25	3.60	90	24	9.8	3	0.08

176—178—Stars used with Mars in 1864 for investigation of the constant of Solar Parallax

203—944 Groombridge

207—Observed by mistake for the planet Ausonia

210—*δ* Orionis Var 1—Supposed to vary irregularly between 2.2 and 2.7 magnitude

[45 66]

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
176	IV 995 W B N	+ 3 6345	+ 0 0114		- 6 437	+ 0 505		
177		+ 0 5767	+ 0 0186		- 6 370	+ 0 083		
178	IV 1018 W B N	+ 3 6306	+ 0 0113		- 6 365	+ 0 505		
179	1656 Lacaille	+ 0 9532	+ 0 0124		- 6 202	+ 0 135		
180	3 Aurigæ :	+ 3 8962	+ 0 0144	- 0 003	- 6 186	+ 0 544	+ 0 02	1520
181	99 Tauri	+ 3 6324	+ 0 0109	+ 0 004	- 6 067	+ 0 508	+ 0 03	1527
182	1761 Taylor	+ 2 0280	+ 0 0036		- 6 031	+ 0 285		
183	1780 Taylor	+ 1 2692	+ 0 0034		- 5 842	+ 0 180		
184		+ 2 0115	+ 0 0038		- 5 837	+ 0 284		
185		+ 0 7980	+ 0 0139		- 5 807	+ 0 113		
186	1797 Taylor	+ 0 9956	+ 0 0111		- 5 624	+ 0 141		
187	102 Tauri :	+ 3 5749	+ 0 0095	+ 0 004	- 5 614	+ 0 503	+ 0 06	1551
188	1697 Lacaille	+ 2 0258	+ 0 0036		- 5 456	+ 0 286		
189	1811 Taylor	+ 1 9954	+ 0 0038		- 5 439	+ 0 282		1561
190	1705 Lacaille	+ 2 0192	+ 0 0037		- 5 408	+ 0 286		
191	104 Tauri m	+ 3 5028	+ 0 0033	+ 0 040	- 5 240	+ 0 495	- 0 02	1568
192	2 Leporis ε	+ 2 5357	+ 0 0033	+ 0 001	- 5 215	+ 0 359	+ 0 08	1575
193	103 Tauri	+ 3 6492	+ 0 0097	0 000	- 5 206	+ 0 516	- 0 05	1572
194	1739 Lacaille	+ 1 0795	+ 0 0093		- 4 949	+ 0 155		
195	13 Aurigæ α (Capella)	+ 4 4123	+ 0 0173	+ 0 008	- 4 627	+ 0 629	+ 0 43	1613
196	19 Orionis β (Rigel)	+ 2 8805	+ 0 0040	- 0 001	- 4 511	+ 0 412	+ 0 02	1623
197		+ 0 7584	+ 0 0117		- 4 470	+ 0 110		
198		+ 1 9832	+ 0 0036		- 4 262	+ 0 285		
199		+ 0 4231	+ 0 0144		- 4 048	+ 0 062		
200		+ 0 4437	+ 0 0138		- 3 927	+ 0 065		
201		+ 0 4790	+ 0 0128		- 3 686	+ 0 070		
202	112 Tauri β	+ 3 7853	+ 0 0032	+ 0 003	- 3 681	+ 0 545	+ 0 20	1681
203	40 R P L	+ 18 4661	+ 0 6873		- 3 590	+ 4 652		1662
204	1984 Taylor	+ 0 7072	+ 0 0104		- 3 581	+ 0 103		1697
205		+ 0 9468	+ 0 0084		- 3 562	+ 0 138		
206		+ 1 9251	+ 0 0035		- 3 503	+ 0 279		
207		+ 3 8430	+ 0 0081		- 3 336	+ 0 554		
208		+ 0 5160	+ 0 0113		- 3 260	+ 0 075		
209	λ Doradus	+ 0 8713	+ 0 0081		- 3 108	+ 0 127		1729
210	34 Orionis δ Var 1	+ 3 0627	+ 0 0038	+ 0 001	- 3 046	+ 0 443	+ 0 04	1730

181—193 —Proper motions adopted from *Greenwich Catalogue*192 —Proper motions from Mr Stone's list Vol 33 *Memoirs R A S*

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
211	11 Leporis α	3 0		5	26	44 02	107	55	20 2	2	0 53
212	46 Orionis ϵ	2 0		5	29	18 85	91	17	31 1	5	0 10
213	123 Tauri ζ	3 5		5	29	31 12	68	56	40 1	4	0 50
214		7 0	1	5	30	59 44	150	18	29	2	0 50
215	1949 Lacaille	6 2	1	5	32	15 80	154	19	4 4	1	0 06
216		8 6	2	5	32	42 45	150	11	35 4	3	0 37
217	α Columbae	2 0		5	34	43 52	124	8	53	6	0 24
218	2118 Taylor	8 5	1	5	35	8 22	130	45	35 4	1	0 01
219	1971 Lacaille	7 1	2	5	36	21 47	149	11	31 8	2	0 07
220		9 6	1	5	36	43 56	129	57	50 9	1	0 07
221	2184 Taylor	9 1	2	5	43	54 50	150	46	24 6	2	0 54
222		9 1	2	5	44	9 53	152	58	2 5	2	0 07
223	54 Orionis χ^1	5 0		5	46	19 70	69	45	11 8	2	0 95
224	58 Orionis α Var 1	1 0		5	47	48 60	82	37	17 7	4	0 51
225		9 4	2	5	49	28 43	63	50	12 9	2	0 54
226		9 7	1	5	49	36 83	130	1	18 6	1	0 09
227	43 R P L	6 6		5	52	0 00	3	14	22 0	1	0 61
228		9 0	1	5	52	41 05	129	32	33 9	1	0 05
229		8 8	1	5	53	1 65	130	24	59 2	1	0 97
230	64 Orionis χ^3	5 7		5	55	24 37	70	18	40 8	2	0 13
231	62 Orionis χ^4	5 0	1	5	55	50 82	69	51	42 9	1	0 11
232	2301 Taylor	6 5	1	5	58	29 56	148	6	17 9	1	0 09
233	2310 Taylor	6 8	2	5	59	37 53	150	29	6 8	2	0 02
234	67 Orionis ν	5 0		5	59	48 47	75	13	8 0	6	0 25
235		8 8	1	6	2	21 04	153	44	39 2	1	0 12
236		9 5	2	6	8	35 03	155	3	30 6	2	0 54
237		9 5	1	6	8	53 37	130	31	33 4	1	0 09
238		9 6	1	6	10	6 15	153	14	23 0	1	0 17
239		7 0	2	6	11	2 53	149	53	51 5	2	0 06
240		8 8	1	6	11	43 04	152	1	49 0	2	0 14
241	13 Geminorum μ	3 3		6	14	43 98	67	25	14 6	8	0 41
242	2273 Lacaille	8 0	2	6	17	3 66	153	58	24 9	2	0 17
243	2286 Lacaille	7 0	2	6	18	48 28	153	45	48 4	2	0 14
244	α Argus (<i>Canopus</i>)	1 0		6	20	55 99	142	37	20 3	3	0 07
245		8 5	2	6	22	6 37	128	48	41 8	2	0 11

224 — α Orionis Var 2 (*Betelgeuse*) — Irregularly variable from 1 0 to 1 5 magnitude

227 — 1004 Groombridge

[5067]

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
211	11 Leporis α	+ 2 6441	+ 0 0029	+ 0 001	- 2 901	+ 0 388	0 00	1741
212	46 Orionis ϵ	+ 3 0421	+ 0 0035	- 0 002	- 2 678	+ 0 441	+ 0 01	1765
213	123 Tauri 3	+ 3 5823	+ 0 0055	0 000	- 2 660	+ 0 519	+ 0 05	1767
214		+ 0 7546	+ 0 0079		- 2 532	+ 0 110		
215	1949 Lacaille	+ 0 3121	+ 0 0106		- 2 421	+ 0 046		1790
216		+ 2 7547	+ 0 0076		- 2 382	+ 0 110		
217	α Columbæ	+ 2 1706	+ 0 0027	+ 0 008	- 2 208	+ 0 316	0 00	1802
218	2113 Taylor	+ 1 9264	+ 0 0031		- 2 172	+ 0 280		
219	1971 Lacaille	+ 0 8418	+ 0 0066		- 2 065	+ 0 123		
220		+ 1 9573	+ 0 0030		- 2 033	+ 0 285		
221	2184 Taylor	+ 0 6883	+ 0 0059		- 1 407	+ 0 101		
222		+ 0 4578	+ 0 0067		- 1 385	+ 0 068		
223	54 Orionis χ^1	+ 3 5644	+ 0 0034	- 0 016	- 1 196	+ 0 520	+ 0 10	1876
224	58 Orionis α Var 2	+ 3 2449	+ 0 0027	+ 0 001	- 1 066	+ 0 473	0 00	1883
225		+ 3 7282	+ 0 0031		- 0 919	+ 0 543		
226		+ 1 9504	+ 0 0027		- 0 909	+ 0 284		
227	43 R P L	+ 26 6889	+ 0 2935		- 0 699	+ 3 889		1879
228		+ 1 9688	+ 0 0026		- 0 640	+ 0 287		
229		+ 1 9341	+ 0 0026		- 0 610	+ 0 282		
230	64 Orionis χ^3	+ 3 5503	+ 0 0022	+ 0 010	- 0 402	+ 0 518	+ 0 03	1934
231	62 Orionis χ^4	+ 3 5623	+ 0 0022	0 000	- 0 364	+ 0 519	+ 0 02	1939
232	2301 Taylor	+ 0 9235	+ 0 0030		- 0 131	+ 0 135		1954
233	2310 Taylor	+ 0 7104	+ 0 0030		- 0 083	+ 0 104		
234	67 Orionis ν	+ 3 4248	+ 0 0017	+ 0 001	- 0 017	+ 0 500	+ 0 02	1958
235		+ 0 3614	+ 0 0025		+ 0 205	+ 0 053		
236		+ 0 1093	+ 0 0005		+ 0 750	+ 0 020		
237		+ 1 9300	+ 0 0021		+ 0 777	+ 0 281		
238		+ 0 4232	+ 0 0006		+ 0 883	+ 0 062		
239		+ 0 7686	+ 0 0010		+ 0 996	+ 0 112		
240		+ 0 5576	+ 0 0005		+ 1 025	+ 0 081		
241	13 Gemmorum μ	+ 3 6268	- 0 0003	+ 0 005	+ 1 288	+ 0 527	+ 0 14	2047
242	2273 Lacaille	+ 0 3416	- 0 0014		+ 1 492	+ 0 049		
243	2286 Lacaille	+ 0 3686	- 0 0017		+ 1 643	+ 0 053		2078
244	α Argûs (<i>Canopus</i>)	+ 1 3292	+ 0 0010	0 000	+ 1 830	+ 0 192	0 00	2096
245		+ 2 0017	+ 0 0018		+ 1 931	+ 0 290		

217 — 223 — 230 — 231 — 234 — Proper Motions adopted from *Greenwich Catalogue*
 214 — Proper Motions adopted from *Stone's Catalogue*

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
246	2312 Lacaille	7.3	1	6	22	8.95	153	36	33.9	1	0.18
247	2524 Taylor	7.2	1	6	23	27.42	131	3	3.0	1	0.09
248	2541 Taylor	6.4	2	6	24	54.97	147	54	59.3	2	0.07
249		9.0	2	6	27	30.56	152	27	51.6	2	0.13
250		9.0	2	6	27	45.52	131	5	17.0	2	0.10
251		9.0	2	6	28	24.30	130	55	47.3	2	0.11
252		8.6	2	6	28	39.22	151	10	1.3	2	0.17
253	24 Geminorum γ	2.5		6	29	51.26	73	29	18.1	9	0.31
254		8.8	1	6	33	33.10	152	27	3.8	1	0.19
255		7.7	1	6	34	30.70	130	27	55.6	1	0.09
256	51 Cephei (<i>Hew</i>)	5.3		6	35	39.16	2	45	19.4	15	0.26
257	2652 Taylor	7.0	2	6	36	32.83	151	24	49.6	2	0.11
258		9.3	1	6	37	53.05	153	20	37.4	1	0.18
259	2667 Taylor	8.1	1	6	38	22.76	148	59	39.8	1	0.18
260		8.6	1	6	39	7.42	131	3	25.0	1	0.17
261	9 Canis Majoris α (<i>Sirius</i>)	1.0		6	39	9.21	106	31	56.6	3	0.09
262		8.4	3	6	40	29.47	131	2	27.1	3	0.17
263	2724 Taylor	8.6	2	6	44	53.34	144	36	1.6	2	0.20
264		9.6	2	6	46	32.81	130	10	6.9	2	0.15
265	α Pictoris	5.0	2	6	46	47.58	151	47	46.1	2	0.11
266	2500 Lacaille	7.9	2	6	47	59.50 0.05	130	23	20.6	2	0.12
267	2532 Lacaille	6.8	3	6	48	12.87	150	5	32.5	3	0.18
268		9.3	2	6	48	50.56	130	10	17.0	2	0.15
269		9.0	1	6	49	43.02	129	8	19.7	1	0.09
270		10.7	2	6	50	25.88	75	17	25.1	2	0.08
271	21 Canis Majoris ϵ	1.7		6	53	16.89	118	47	21.4	7	0.11
272		9.0	3	6	53	47.80	129	47	31.5	3	0.15
273	3 Geminorum (1st)	6.2	1	6	56	1.73	69	12	23.9	1	0.09
274	43 Geminorum γ Var 1	4.3		6	56	2.43	69	14	1.9	5	0.09
275	2825 Taylor	8.9	2	6	56	52.03	150	54	38.0	2	0.13
276	23 Canis Majoris γ	4.5		6	57	36.31	105	26	5.5	4	0.12
277		9.1	2	6	58	23.20	66	56	5.7	2	0.14
278		9.0	1	6	59	11.80	66	59	54.9	1	0.18
279		9.3	1	6	59	48.93	129	43	4.3	1	0.07
280	2851 Taylor	7.8	2	7	0	49.81	145	44	48.1	2	0.19

270 — Observed by mistake for Pomona.

274 — 3 Geminorum Var 1 — Period 10.16 days — Range 3.7 to 4.5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
246	2312 Lacaille	+ 0 3902	- 0 0025		+ 1 935	+ 0 056		
247	2524 Taylor	+ 1 9139	+ 0 0018		+ 2 049	+ 0 277		
248	2541 Taylor	+ 0 9520	- 0 0006		+ 2 176	+ 0 137		2124
249		+ 0 5260	- 0 0030		+ 2 401	+ 0 075		
250		+ 1 9148	+ 0 0016		+ 2 424	+ 0 276		
251		+ 1 9216	+ 0 0016		+ 2 479	+ 0 277		
252		+ 0 6624	- 0 0025		+ 2 501	+ 0 095		
253	24 Geminorum γ	+ 3 4650	- 0 0015	+ 0 001	+ 2 605	+ 0 500	+ 0 04	2168
254		+ 0 5864	- 0 0043		+ 2 925	+ 0 076		
255		+ 1 9445	+ 0 0015		+ 3 008	+ 0 279		
256	51 Cephei (Hev)	+ 30 5168	- 1 8259	- 0 027	+ 3 107	+ 4 396	+ 0 08	2157
257	2652 Taylor	+ 0 6495	- 0 0042		+ 3 185	+ 0 092		2203
258		+ 0 4451	- 0 0061		+ 3 300	+ 0 063		
259	2667 Taylor	+ 0 8785	- 0 0029		+ 3 343	+ 0 125		
260		+ 1 9244	+ 0 0014		+ 3 407	+ 0 276		
261	9 Canis Majoris α	+ 2 6808	+ 0 0010	- 0 035	+ 3 409	+ 0 384	+ 1 24	2213
262		+ 1 9270	+ 0 0013		+ 3 524	+ 0 275		
263	2724 Taylor	+ 1 2266	- 0 0014		+ 3 903	+ 0 173		
264		+ 1 9067	+ 0 0013		+ 4 045	+ 0 279		
265	α Pictoris	+ 0 6308	- 0 0063	- 0 010	+ 4 066	+ 0 088	- 0 18	2260
266	2500 Lacaille	+ 1 9585	+ 0 0012		+ 4 084	+ 0 278		
267	2532 Lacaille	+ 0 7990	- 0 0050		+ 4 188	+ 0 112		
268		+ 1 9689	+ 0 0012		+ 4 241	+ 0 279		
269		+ 2 0095	+ 0 0013		+ 4 316	+ 0 284		
270		+ 3 4146	- 0 0031		+ 4 378	+ 0 484		
271	21 Canis Majoris ϵ	+ 2 3571	+ 0 0013	0 000	+ 4 620	+ 0 332	+ 0 02	2298
272		+ 1 9890	+ 0 0012		+ 4 664	+ 0 280		
273	5 Geminorum (1st)	+ 3 5647	- 0 0050		+ 4 853	+ 0 503		
274	43 Geminorum γ Var 1	+ 3 5640	- 0 0050	- 0 001	+ 4 855	+ 0 503	+ 0 01	2305
275	2825 Taylor	+ 0 7426	- 0 0090		+ 4 925	+ 0 103		
276	23 Canis Majoris γ	+ 2 7144	+ 0 0005	+ 0 002	+ 4 988	+ 0 381	+ 0 01	2319
277		+ 3 6230	- 0 0058		+ 5 054	+ 0 509		
278		+ 3 6209	- 0 0059		+ 5 123	+ 0 509		
279		+ 1 9990	+ 0 0011		+ 5 176	+ 0 280		
280	2851 Taylor	+ 1 1774	- 0 0033		+ 5 261	+ 0 164		

265 — Proper Motions adopted from *Stones Catalogue*

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observation	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
281	R Canis Minoris Var 1	9.2	1	7	1	13.77	79	15	50.6	1	0.08
282	2882 Taylor	8.9	4	7	3	26.90	151	1	2.7	4	0.13
283		9.3	1	7	4	58.07	130	12	33.2	1	0.07
284	2899 Taylor	8.9	1	7	5	47.76	130	8	49.2	1	0.09
285		9.5	1	7	5	51.92	129	23	13.1	1	0.08
286	2678 Lacaille	8.5	1	7	6	10.50	148	9	13.1	1	0.18
287		8.2	1	7	6	38.61	129	2	11.9	1	0.07
288		9.3	2	7	7	59.43	118	46	1.9	2	0.07
289		8.9	2	7	8	9.13	152	5	1.8	2	0.12
290	2940 Taylor	9.0	1	7	9	27.96	129	57	41.1	1	0.08
291	54 Geminorum λ	4.3		7	10	16.45	73	13	3.6	3	0.16
292		9.8	1	7	10	16.60	131	52	8.3	1	0.07
293	55 Geminorum δ	3.5		7	11	59.93	67	46	15.7	10	0.12
294		9.2	1	7	13	1.19	129	15	59.3	1	0.07
295		8.7	1	7	14	30.70	138	40	35.4	1	0.07
296	3005 Taylor	8.7	2	7	15	23.80	140	0	54.3	2	0.19
297	2805 Lacaille	8.3	1	7	17	21.21	153	8	1.0	1	0.18
298		9.2	1	7	18	4.08	129	42	31.1	1	0.09
299	3043 Taylor	7.0	1	7	19	13.59	129	16	21.8	1	0.12
300		9.0		7	19	35.74	123	7	59.6	1	0.08
301	63 Geminorum	5.5	1	7	19	39.81	68	10	48.8	2	0.05
302	3054 Taylor	7.4	2	7	20	2.06	151	41	28.6	2	0.14
303		7.7	1	7	21	34.23	131	50	25.7	1	0.09
304	6 Canis Minoris	5.0		7	22	13.39	77	42	55.1	1	0.13
305		9.8	1	7	23	24.08	51	57	26.3	1	0.07
306		9.0	1	7	24	58.41	123	8	19.2	1	0.17
307	S Canis Minoris Var 2	8.3	1	7	25	20.43	81	23	41.7	1	0.08
308	68 Geminorum	5.4		7	25	50.63	73	53	3.7	4	0.36
309	66 Geminorum α (Castor)	1.7		7	25	55.06	57	49	1.8	3	0.14
310		8.9	1	7	26	5.18	142	5	53.7	1	0.04
311		9.0	3	7	26	43.29	123	7	22.5	3	0.18
312		9.3	1	7	27	13.25	153	10	42.2	1	0.18
313	3126 Taylor	7.1	1	7	29	34.20	143	15	44.3	1	0.09
314	10 Can Min α (Procyon)	1.0		7	32	10.86	84	25	46.3	7	0.15
315	2893 Lacaille	7.5	2	7	32	43.41	121	49	27.6	2	0.15

281—R Canis Minoris Var 1—Period 335 days—Range 7.5 to 11th magnitude

307—S Canis Minoris Var 2—Period 332 days—Range 8.5 magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
281	R Canis Minoris Var 1	+ 3 3049	- 0 0081		+ 5 294	+ 0 463		
282	2882 Taylor	+ 0 7503	- 0 0090		+ 5 481	+ 0 108		
283		+ 1 9676	+ 0 0009		+ 5 609	+ 0 274		
284	2899 Taylor	+ 1 9905	+ 0 0010		+ 5 678	+ 0 277		
285		+ 2 0193	+ 0 0011		+ 5 685	+ 0 280		
286	2678 Lacaille	+ 1 0087	- 0 0055		+ 5 711	+ 0 189		
287		+ 2 0832	+ 0 0011		+ 5 750	+ 0 282		
288		+ 0 9634	+ 0 0059		+ 5 863	+ 0 182		
289		+ 0 6594	- 0 0102		+ 5 876	+ 0 089		
290	2940 Taylor	+ 2 0028	+ 0 0010		+ 5 986	+ 0 276		
291	54 Geminorum λ	+ 3 4565	- 0 0055	- 0 002	+ 6 054	+ 0 478	+ 0 04	2398
292		+ 1 9296	+ 0 0007		+ 6 054	+ 0 265		
293	55 Geminorum δ	+ 3 5917	- 0 0072	0 000	+ 6 198	+ 0 495	+ 0 02	2410
294		+ 2 0341	+ 0 0009		+ 6 282	+ 0 279		
295		+ 1 0234	- 0 0008		+ 6 406	+ 0 221		
296	3005 Taylor	+ 0 9653	- 0 0071		+ 6 487	+ 0 130		
297	2805 Lacaille	+ 0 5816	- 0 0132		+ 6 641	+ 0 077		
298		+ 2 0255	+ 0 0010		+ 6 700	+ 0 275		
299	3043 Taylor	+ 2 0435	+ 0 0009		+ 6 795	+ 0 277		
300		+ 2 2515	+ 0 0013		+ 6 826	+ 0 306		
301	63 Geminorum	+ 3 5728	- 0 0078	- 0 004	+ 6 832	+ 0 487	+ 0 10	2460
302	3054 Taylor	+ 0 7398	- 0 0111		+ 6 864	+ 0 098		
303		+ 1 9500	+ 0 0006		+ 6 988	+ 0 264		
304	6 Canis Minoris	+ 3 3446	- 0 0052	+ 0 004	+ 7 042	+ 0 453	0 00	2473
305		+ 4 0499	- 0 0165		+ 7 139	+ 0 549		
306		+ 2 2585	+ 0 0011		+ 7 267	+ 0 304		
307	S Canis Minoris Var 2	+ 3 2605	- 0 0044		+ 7 298	+ 0 440		
308	68 Geminorum	+ 3 4316	- 0 0066	- 0 004	+ 7 338	+ 0 463	0 00	2486
309	66 Gem α^2 (Castor)	+ 3 8550	- 0 0133	- 0 013	+ 7 344	+ 0 519	+ 0 08	2485
310		+ 1 4744	- 0 0024		+ 7 357	+ 0 197		
311		+ 2 2616	+ 0 0011		+ 7 416	+ 0 303		
312		+ 0 6169	- 0 0146		+ 7 449	+ 0 081		
313	3126 Taylor	+ 1 4160	- 0 0032		+ 7 640	+ 0 188		2507
314	10 Can Min (Procyon)	+ 3 1920	- 0 0041	- 0 048	+ 7 850	+ 0 425	+ 1 08	2522
315	2893 Lacaille	+ 2 3093	+ 0 0012		+ 7 894	+ 0 307		

291—304—Proper Motions adopted from "Greenwich Catalogues"

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
316	2910 Lacaille	7.7	1	7	38	17.38	143	52	51.3 ^{6.8}	1	0.14
317		9.8	1	7	35	10.00	66	15	55.0	1	0.09
318		8.9	1	7	35	19.80	152	59	34.8	1	0.18
319		8.6	1	7	35	29.22	144	19	41.9	1	0.04
320	78 Geminorum β (Pollux)	1.8		7	36	59.42	61	38	56.1	6	0.14
321	2971 Lacaille	7.6	2	7	40	18.27	143	54	58.3	2	0.15
322	T Geminorum Var 4	10.4	1	7	41	8.37	65	55	48.7	1	0.09
323		8.5	1	7	41	18.45	151	34	30.1	1	0.18
324		8.7	1	7	41	32.28	144	18	41.3	1	0.15
325	3013 Lacaille	7.0	2	7	43	29.04	142	0	43.2	2	0.14
326	49 R P L	6.5		7	43	55.24	5	33	41.3	3	0.34
327	3034 Lacaille	8.8	1	7	44	4.63	153	51	39.1	1	0.18
328	3031 Lacaille	7.7	3	7	45	5.13	144	22	27.0	3	0.12
329	3290 Taylor	8.3	1	7	46	18.09	144	27	57.2	1	0.07
330	1791 Brisbane	8.3	1	7	46	18.63	144	24	39.2	1	0.07
331		8.5	2	7	46	20.45	144	22	26.6	2	0.17
332		9.1	2	7	48	28.61	67	46	6.7	2	0.15
333	3310 Taylor	7.0	1	7	48	32.66	149	17	52.9	1	0.20
334		9.5	1	7	48	59.01	130	26	3.1	1	0.10
335		6.9	1	7	49	29.50	152	34	55.6	1	0.18
336		8.8	1	7	50	4.76 ^{5.12}	129	38	25.7	1	0.19
337	3339 Taylor	8.6	1	7	51	50.10	144	16	56.4	1	0.12
338		8.7	1	7	52	54.08	144	41	42.0	1	0.16
339	5 Cancri	6.0	2	7	53	45.22	73	10	22.6	2	0.06
340	6 Cancri	5.5		7	55	9.70	61	49	40.3	4	0.13
341	3373 Taylor	7.9	2	7	55	13.81	144	11	52.5	2	0.16
342		8.0	1	7	55	20.11	128	30	12.2	1	0.21
343	1855 Brisbane	6.9	2	7	55	28.07	152	55	47.2	2	0.18
344	3330 Taylor	7.8	3	7	55	47.96	144	10	33.8	3	0.14
345		9.8	1	7	56	31.51	129	21	20.2	1	0.09
346	3154 Lacaille	5.6	3	7	58	36.73	153	11	28.7	3	0.14
347	12 Cancri	6.0	2	8	1	6.48	75	57	58.6	2	0.06
348	3174 Lacaille	7.2	2	8	1	25.69	155	37	56.0	2	0.22
349	15 Argus	3.0		8	1	45.15	113	54	51.6	9	0.14
350		9.1	1	8	2	2.82	113	46	47.6	1	0.12

[56.8]

— 4.2

[5.12]

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
316	2910 Lacaille	+ 1 3896	- 0 0037		+ 7 940	+ 0 183		
317		+ 3 6100	- 0 0131		+ 8 090	+ 0 479		
318		+ 0 6726	- 0 0152		+ 8 108	+ 0 087		
319		+ 1 3648	- 0 0041		+ 8 116	+ 0 179		
320	78 Gem β (Pollux)	+ 3 7298	- 0 0128	- 0 049	+ 8 236	+ 0 491	+ 0 06	2555
321	2971 Lacaille	+ 1 4105	- 0 0038		+ 8 500	+ 0 182		
322	T Gemmorum Var 4	+ 3 6121	- 0 0110		+ 8 565	+ 0 472		
323		+ 0 8393	- 0 0128		+ 8 579	+ 0 107		
324		+ 1 3903	- 0 0041		+ 8 598	+ 0 179		
325	3013 Lacaille	+ 1 5317	- 0 0026		+ 8 751	+ 0 197		
326	49 R P L	+ 15 4159	- 1 2230		+ 8 785	+ 2 017		2585
327	3034 Lacaille	+ 0 8237	- 0 0180		+ 8 797	+ 0 078		
328	3031 Lacaille	+ 1 3990	- 0 0042		+ 8 877	+ 0 179		
329	3290 Taylor	+ 1 3977	- 0 0043		+ 8 972	+ 0 178		
330	1791 Brisbane	+ 1 4012	- 0 0043		+ 8 973	+ 0 179		
331		+ 1 4041	- 0 0042		+ 8 987	+ 0 179		
332		+ 3 5585	- 0 0109		+ 9 141	+ 0 458		
333	3310 Taylor	+ 1 0684	- 0 0095		+ 9 148	+ 0 135		
334		+ 2 0593	+ 0 0010		+ 9 181	+ 0 263		
335		+ 0 7832	- 0 0153		+ 9 221	+ 0 098		
336		+ 2 0897	+ 0 0011		+ 9 266	+ 0 266		
337	3339 Taylor	+ 1 4297	- 0 0041		+ 9 403	+ 0 180		
338		+ 1 4096	- 0 0044		+ 9 485	+ 0 177		
339	5 Cancer	+ 3 4277	- 0 0090	- 0 001	+ 9 551	+ 0 436	0 00	2664
340	6 Cancer	+ 3 6995	- 0 0148	- 0 005	+ 9 659	+ 0 468	+ 0 07	2672
341	3373 Taylor	+ 1 4478	- 0 0041		+ 9 664	+ 0 181		
342		+ 2 1404	+ 0 0013		+ 9 672	+ 0 270		
343	1855 Brisbane	+ 0 7811	- 0 0165		+ 9 683	+ 0 096		2680
344	3380 Taylor	+ 1 4513	- 0 0040		+ 9 704	+ 0 181		
345		+ 2 1143	+ 0 0013		+ 9 763	+ 0 265		
346	3154 Lacaille	+ 0 7728	- 0 0172		+ 9 922	+ 0 094		2713
347	12 Cancer	+ 3 3607	- 0 0088	- 0 001	+ 10 110	+ 0 419	+ 0 02	2720
348	3174 Lacaille	+ 0 5249	- 0 0246		+ 10 135	+ 0 082		
349	15 Argus	+ 2 5608	+ 0 0009	- 0 007	+ 10 160	+ 0 318	- 0 06	2728
350		+ 2 5645	+ 0 0009		+ 10 182	+ 0 318		

339—347—Proper motions adopted from "Greenwich Catalogues"

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
351	3200 Lacaille	6.9	2	8	4	47.63	153	7	24.3	2	0.18
352		8.6	1	8	5	19.41	130	45	22.9	1	0.09
353		10.1	2	8	5	20.10	77	37	34.8	2	0.23
354		9.0	3	8	5	26.43	77	24	57.4	3	0.23
355		9.7	3	8	8	19.71	77	26	31.1	3	0.24
356	R. Canceri Var 1	8.0	2	8	9	3.87	77	51	33.0	2	0.19
357		9.2	3	8	9	7.45	77	27	27.9	3	0.24
358		9.7	1	8	9	55.34	74	16	13.7	1	0.09
359		9.9	3	8	10	28.84	77	37	47.6	3	0.22
360	16224 Lalande	8.5	1	8	10	33.55	73	54	11.0	1	0.07
361		8.8	1	8	12	17.13	128	43	38.1	1	0.10
362		8.9	1	8	12	45.20	128	40	53.7	1	0.10
363		9.7	1	8	12	57.45	130	45	32.2	1	0.13
364		9.2	2	8	13	20.63	131	41	13.8	2	0.15
365		9.6	1	8	13	42.39	133	17	18.1	1	0.12
366		9.7	1	8	14	30.56	154	5	5.7	1	0.13
367		9.3	1	8	16	25.78	77	31	46.7	1	0.20
368		8.6	1	8	17	22.71	77	49	9.1	1	0.19
369		9.0	1	8	17	23.61	141	15	52.4	1	0.12
370	VIII 459 W B N	8.7	3	8	20	17.12	74	27	21.4	3	0.13
371	29 Canceri	6.0		8	21	2.13	75	20	30.1	1	0.13
372		9.0	3	8	23	7.81	73	25	24.7	3	0.19
373	3620 Taylor	8.0	1	8	23	10.60	130	47	47.6	1	0.12
374		8.6	1	8	23	32.12	128	38	35.7	1	0.25
375	31 Canceri θ	5.3		8	23	50.24	71	26	55.0	1	0.05
376		9.5	4	8	24	44.83	73	45	40.7	4	0.17
377	33 Canceri η	5.7		8	24	50.41	69	5	59.4	9	0.16
378	3651 Taylor	7.8	1	8	25	39.62	130	3	20.0	1	0.10
379	3652 Taylor	8.2	2	8	25	43.63	130	2	38.3	2	0.16
380	3393 Lacaille	7.9	2	8	25	56.92	149	40	8.0	2	0.12
381		9.1	1	8	26	25.43	130	30	28.1	1	0.27
382	VIII 635 W B N	9.0	4	8	27	38.93	73	48	19.4	4	0.17
383	U Canceri Var 4	9.7	2	8	27	58.93	70	38	20.4	2	0.10
384	3672 Taylor	7.2	2	8	28	29.95	74	13	7.8	3	0.13
385	16890 Lalande	8.9	3	8	28	41.64	73	12	52.3	3	0.26

356 — R. Canceri Var 1 — Period 354 days — Range 6th to 12th magnitude

358 — 360 — Comparison stars for Aradne in 1863

370 — Comparison star for new variable star W Canceri Var 5

372 — 376 — 382 — 384 — 385 — Comparison stars for Freia

383 — U Canceri Var 4 — Period 306 days — Range, 9th magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
351	3200 Lacaille	+ 0 8156	- 0 0172		+ 10 388	+ 0 098		
352		+ 2 0878	+ 0 0013		+ 10 428	+ 0 256		
353		+ 3 3198	- 0 0080		+ 10 429	+ 0 410		
354		+ 3 3270	- 0 0081		+ 10 487	+ 0 410		
355		+ 3 3245	- 0 0081		+ 10 651	+ 0 406		
356	R Cancri Var 1	+ 3 3153	- 0 0080		+ 10 707	+ 0 404		
357		+ 3 3286	- 0 0082		+ 10 711	+ 0 405		
358		+ 3 3397	- 0 0096		+ 10 770	+ 0 412		
359		+ 3 3191	- 0 0082		+ 10 811	+ 0 403		
360	16224 Lalande	+ 3 3970	- 0 0097		+ 10 817	+ 0 412		
361		+ 2 1736	+ 0 0018		+ 10 944	+ 0 261		
362		+ 2 1763	+ 0 0018		+ 10 978	+ 0 261		
363		+ 2 1083	+ 0 0013		+ 10 993	+ 0 252		
364		+ 2 0773	+ 0 0015		+ 11 021	+ 0 248		
365		+ 2 0209	+ 0 0013		+ 11 047	+ 0 241		
366		+ 0 7810	- 0 0193		+ 11 106	+ 0 090		
367		+ 3 3169	- 0 0085		+ 11 246	+ 0 395		
368		+ 3 3104	- 0 0084		+ 11 314	+ 0 394		
369		+ 1 6961	- 0 0014		+ 11 315	+ 0 199		
370	VIII 459 W B N	+ 3 3765	- 0 0100		+ 11 523	+ 0 388		
371	29 Cancri	+ 3 3576	- 0 0096	- 0 002	+ 11 577	+ 0 395	+ 0 01	2836
372		+ 3 3943	- 0 0109		+ 11 726	+ 0 397		
373	3620 Taylor	+ 2 1361	+ 0 0020		+ 11 730	+ 0 248		
374		+ 2 2060	+ 0 0023		+ 11 755	+ 0 256		
375	31 Cancri θ	+ 3 4353	- 0 0118	- 0 006	+ 11 777	+ 0 401	+ 0 06	2853
376		+ 3 3864	- 0 0106		+ 11 841	+ 0 394		
377	33 Cancri η	+ 3 4839	- 0 0129	- 0 005	+ 11 848	+ 0 404	+ 0 06	2862
378	3651 Taylor	+ 2 1674	+ 0 0022		+ 11 906	+ 0 249		
379	3652 Taylor	+ 2 1681	+ 0 0022		+ 11 910	+ 0 249		
380	3393 Lacaille	+ 1 2348	- 0 0095		+ 11 926	+ 0 140		
381		+ 2 1552	+ 0 0022		+ 11 959	+ 0 247		
382	VIII 635 W B N	+ 3 3825	- 0 0107		+ 12 045	+ 0 390		
383	U Cancri Var 4	+ 3 4473	- 0 0124		+ 12 068	+ 0 397		
384	3672 Taylor	+ 3 3734	- 0 0105		+ 12 104	+ 0 387		2888
385	16890 Lalande	+ 3 3934	- 0 0110		+ 12 113	+ 0 389		

371—Proper Motions adopted from "Greenwich Catalogue.

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
386	VIII 684 W B N	8.9	1	8	29	1.20	70	38	54.4	1	0.27
387	VIII 699 W B N	9.0	1	8	29	31.11	70	39	37.1	1	0.25
388		9.4	1	8	31	12.43	129	45	24.0	1	0.16
389	3710 Taylor	8.2	1	8	31	24.29	141	21	4.0	1	0.15
390		8.6	1	8	33	9.73	129	23	27.0	1	0.20
391	VIII 852 W B N	8.9	3	8	34	1.84	74	7	39.7	3	0.13
392		9.0	3	8	34	39.45	129	46	11.8	3	0.18
393	3491 Lacaille	7.9	1	8	36	1.13	152	21	51.3	1	0.27
394	S Cancri Var 2	8.3	1	8	36	9.77	70	28	48.0	1	0.27
395	3767 Taylor	7.6	1	8	36	19.67	140	50	15.2	1	0.19
396	47 Cancri δ	4.3		8	36	57.18	71	20	55.9	1	0.95
397		9.2	1	8	37	16.10	136	8	32.1	1	0.26
398	17231 Lalande	7.9	2	8	37	44.14	74	27	41.3	3	0.14
399		8.3	2	8	37	50.53	136	5	33.6	2	0.20
400	VIII 977 W B N	9.5	3	8	39	15.23	74	49	0.5	3	0.12
401	11 Hydræ ϵ	3.5		8	39	34.29	83	5	4.5	6	0.18
402		8.5	1	8	40	29.34	129	15	34.0	1	0.15
403	VIII 1043 W B N	8.3	3	8	42	21.43	74	39	54.4	3	0.11
404		8.7	2	8	45	46.93	86	27	12.1	2	0.26
405	60 R P L	6.5		8	46	23.08	5	16	53.9	6	0.40
406	S Hydræ Var 3	8.8	2	8	46	28.36	86	25	13.4	2	0.23
407	3886 Taylor	7.9	3	8	48	14.02	136	52	52.8	3	0.17
408	T Hydræ Var 4	9.9	2	8	49	2.74	90	37	29.2	2	0.23
409		7.7	1	8	49	13.13	132	54	19.8	1	0.19
410		7.6	1	8	49	20.12	132	59	0.7	1	0.17
411	9 Ursæ Majoris ϵ	3.0		8	49	52.84	41	25	37.7	4	0.15
412		8.0	1	8	50	15.28	132	56	55.1	1	0.18
413		9.8	1	8	50	46.62	93	44	16.8	1	0.13
414	VIII 1302 W B E	9.0	1	8	50	49.33	93	53	46.7	1	0.23
415		9.2	2	8	50	58.82	93	35	9.3	2	0.17
416	65 Cancri α	4.7		8	51	2.70	77	37	6.1	2	0.21
417		9.3	2	8	54	9.86	142	41	8.8	2	0.19
418		8.4	1	8	54	20.33	130	34	53.3	1	0.28
419	3941 Taylor	8.5	1	8	54	59.75	144	6	23.4	1	0.10
420		8.1	1	8	56	39.39	146	55	44.0	1	0.27

391—398—400—403—Comparison stars for the planet Freia

394—S Cancri Var 2—Period 9.48 days—Range 8th to 10.5 magnitude

405—1286 Carrington

406—S Hydræ Var 3—Period 256 days—Range 8th to 13th magnitude

408—T Hydræ Var 4—Period 289 days—Range 7th to 12th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s		•		
386	VIII 684 W B N	+ 3 4458	- 0 0124		+ 12 141	+ 0 395		
387	VIII 699 W B N	+ 3 4449	- 0 0124		+ 12 175	+ 0 394		
388		+ 2 1938	+ 0 0014		+ 12 298	+ 0 222		
389	3710 Taylor	+ 1 7519	- 0 0006		+ 12 306	+ 0 197		
390		+ 2 2104	+ 0 0026		+ 12 427	+ 0 248		
391	VIII 852 W B N	+ 3 8696	- 0 0109		+ 12 487	+ 0 379		
392		+ 2 2031	+ 0 0027		+ 12 529	+ 0 246		
393	3491 Lacaille	+ 1 0877	- 0 0141		+ 12 623	+ 0 118		2949
394	S Cancri Var 2	+ 3 4402	- 0 0130		+ 12 632	+ 0 385		
395	3767 Taylor	+ 1 2862	- 0 0089		+ 12 643	+ 0 141		
396	47 Cancri δ	+ 3 4216	- 0 0125	- 0 002	+ 12 686	+ 0 382	+ 0 24	2953
397		+ 1 9961	+ 0 0019		+ 12 707	+ 0 220		
398	17231 Lalande	+ 3 3592	- 0 0109		+ 12 738	+ 0 373		
399		+ 1 9997	+ 0 0019		+ 12 746	+ 0 220		
400	VIII 977 W B N	+ 3 3508	- 0 0108		+ 12 841	+ 0 369		
401	11 Hydræ ε	+ 3 1964	- 0 0071	- 0 013	+ 12 862	+ 0 351	+ 0 04	2971
402		+ 2 2365	+ 0 0031		+ 12 924	+ 0 244		
403	VIII 1043 W B N	+ 3 3505	- 0 0109		+ 13 048	+ 0 365		
404		+ 3 1342	- 0 0058		+ 13 275	+ 0 277		
405	60 R P L	+ 13 8924	- 1 7345		+ 13 314	+ 1 509		
406	S Hydræ Var 3	+ 3 1347	- 0 0059		+ 13 320	+ 0 336		
407	3886 Taylor	+ 2 0120	+ 0 0025		+ 13 434	+ 0 212		
408	T Hydræ Var 4	+ 2 9220	- 0 0018		+ 13 488	+ 0 309		
409		+ 2 1530	+ 0 0033		+ 13 498	+ 0 226		
410		+ 2 1510	+ 0 0033		+ 13 506	+ 0 226		
411	9 Ursæ Majoris ε	+ 4 1896	- 0 0446	- 0 047	+ 13 541	+ 0 443	+ 0 28	3043
412		+ 2 1559	+ 0 0034		+ 13 566	+ 0 226		
413		+ 2 9210	- 0 0016		+ 13 599	+ 0 307		
414	VIII 1302 W B E	+ 2 9183	- 0 0016		+ 13 602	+ 0 307		
415		+ 2 9238	- 0 0019		+ 13 612	+ 0 307		
416	65 Cancri α	+ 3 2876	+ 0 0098	0 000	+ 13 616	+ 0 346	+ 0 04	3055
417		+ 1 8005	+ 0 0005		+ 13 815	+ 0 184		
418		+ 2 2426	+ 0 0039		+ 13 826	+ 0 231		
419	3941 Taylor	+ 1 7375	- 0 0003		+ 13 867	+ 0 177		
420		+ 1 5992	+ 0 0027		+ 13 972	+ 0 161		

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
421		95	1	8	56	43 30	129	13	12 4	1	0 15
422		90		8	58	5 43	146	49	41 4	1	0 24
423		90	1	8	58	9 40	146	18	28 9	1	0 27
424		89	3	8	59	6 04	145	38	9 23	3	0 21
425	76 Cancri κ	55		9	0	22 78	78	47	12 3	3	0 16
426		82	2	9	1	3 51	150	1	31 8	2	0 19
427		80	1	9	1	50 14	128	57	10 7	1	0 21
428	3705 Lacaille	72	2	9	2	13 95	151	17	3 6	2	0 29
429		105	1	9	2	15 75	71	26	28 1	1	0 16
430		87	1	9	4	23 60	130	29	40 7	1	0 28
431	3713 Lacaille	88	1	9	4	34 83	143	49	12 4	1	0 21
432	4021 Taylor	71	2	9	5	31 14	138	44	11 5	2	0 18
433		77	1	9	6	26 92	142	29	27 7	1	0 27
434		88	1	9	6	30 83	138	41	30 2	1	0 15
435		86	3	9	8	14 25	143	14	15 1	3	0 13
436	83 Cancri μ	67		9	11	23 12	71	43	13 5	4	0 23
437		82	4	9	11	43 62	130	45	7 9	4	0 21
438		79	2	9	13	3 26	72	17	57 5	3	0 22
439	ι Argus	20		9	13	27 06	148	42	22 3	3	0 23
440		86	2	9	14	37 92	24	50	29 3	2	0 25
441		90	1	9	15	15 46	143	48	40 2	1	0 22
442		90	1	9	15	54 93	25	4	26 1	1	0 23
443		90	1	9	16	6 17	140	7	34 8	1	0 16
444	9881 O A N	92	2	9	17	37 29	25	3	44 7	2	0 13
445		77	2	9	19	29 08	75	6	31 1	2	0 16
446	30 Hydræ α Var \pm	23		9	20	54 21	98	4	15 5	6	0 21
447	3853 Lacaille	81	3	9	22	32 01	131	59	15 3	3	0 23
448	25 Ursæ Majoris θ	33		9	23	44 56	37	42	13 9	2	0 13
449	3886 Lacaille	78	1	9	24	43 23	141	49	43 5	1	0 21
450	3887 Lacaille	81	2	9	24	55 04	140	0	31 7	2	0 24
451		90	3	9	26	42 19	145	2	26 6	3	0 23
452		90	1	9	26	55 57	144	53	8 4	1	0 25
453		83	1	9	27	53 54	128	45	53 6	1	0 27
454	4226 Taylor	70	1	9	28	37 63	146	29	33 0	1	0 13
455		82	1	9	28	54 88	128	46	55 4	1	0 15

440 — 442 — 444 — Comparison stars for Comet 2 of 1861

446 — α Hydræ Var \pm — Supposed to vary irregularly from 2 0 to 2 5 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
421		+ 2 2872	+ 0 0040		+ 13 976	+ 0 233		
422		+ 1 6138	- 0 0024		+ 14 062	+ 0 162		
423		+ 1 6428	- 0 0018		+ 14 066	+ 0 165		
424		+ 1 6840	- 0 0010		+ 14 126	+ 0 168		
425	76 Cancer κ	+ 3 2592	- 0 0094	- 0 002	+ 14 204	+ 0 330	+ 0 00	3111
426		+ 1 4405	- 0 0062		+ 14 247	+ 0 142		
427		+ 2 3140	+ 0 0044		+ 14 294	+ 0 231		
428	3705 Lacaille	+ 1 3633	- 0 0088		+ 14 319	+ 0 133		
429		+ 3 3864	- 0 0133		+ 14 320	+ 0 340		
430		+ 2 2804	+ 0 0047		+ 14 450	+ 0 225		
431	3713 Lacaille	+ 1 8055	+ 0 0010		+ 14 462	+ 0 176		
432	4021 Taylor	+ 2 0909	+ 0 0037		+ 14 518	+ 0 197		
433		+ 1 8755	+ 0 0022		+ 14 575	+ 0 182		
434		+ 2 0272	+ 0 0037		+ 14 578	+ 0 197		
435		+ 1 6009	- 0 0025		+ 14 682	+ 0 153		
436	83 Cancer	+ 3 3034	- 0 0134	- 0 012	+ 14 867	+ 0 323	+ 0 16	3171
437		+ 2 3001	+ 0 0052		+ 14 893	+ 0 219		
438		+ 3 3561	- 0 0131		+ 14 966	+ 0 320		
439	Argus	+ 1 6106	- 0 0022	- 0 003	+ 14 988	+ 0 150	+ 0 02	3186
440		+ 4 9798	- 0 1189		+ 15 056	+ 0 473		
441		+ 1 8686	+ 0 0026		+ 15 093	+ 0 174		
442		+ 4 9476	- 0 1123		+ 15 130	+ 0 466		
443		+ 2 0225	+ 0 0045		+ 15 141	+ 0 186		
444	9881 O A N	+ 4 9325	- 0 1126		+ 15 229	+ 0 461		
445		+ 3 3012	- 0 0116		+ 15 334	+ 0 303		
446	30 Hydræ α Var \pm	+ 2 9506	- 0 0013	- 0 004	+ 15 415	+ 0 268	- 0 03	3223
447	3853 Lacaille	+ 2 3089	+ 0 0063		+ 15 504	+ 0 207		
448	25 Ursa Majoris θ	+ 4 1620	- 0 0561	- 0 111	+ 15 571	+ 0 374	+ 0 57	3242
449	3886 Lacaille	+ 2 0057	+ 0 0052		+ 15 626	+ 0 176		
450	3887 Lacaille	+ 2 0740	+ 0 0057		+ 15 636	+ 0 182		
451		+ 1 8862	+ 0 0037		+ 15 733	+ 0 164		
452		+ 1 8907	+ 0 0038		+ 15 745	+ 0 164		
453		+ 2 4110	+ 0 0066		+ 15 802	+ 0 210		
454	4226 Taylor	+ 1 8332	+ 0 0030		+ 15 837	+ 0 157		
455		+ 2 4142	+ 0 0067		+ 15 852	+ 0 209		

439 — Proper Motions taken from Mr Stone's list Mem R A S Vol 42

Mean Positions of Stars for 1861 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
456	4259 Taylor	8.3	2	9	29	1.32	128	49	33.9	2	0.17
457		5.3	1	9	31	57.68	138	44	48.5	1	0.17
458		8.8	3	9	32	27.63	120	53	53.7	3	0.21
459		7.8	1	9	32	54.20	120	47	34.1	1	0.21
460	14 Leonis α	4.0		9	33	53.35	79	29	27.6	1	0.18
461	17 Leonis ϵ	8.9	3	9	34	43.92	130	31	39.4	3	0.19
462		8.5	1	9	35	33.97	151	56	22.6	1	0.27
463		8.0		9	38	7.54	65	36	6.1	8	0.19
464		6.0	5	9	40	14.42	77	56	32.3	5	0.26
465	R Leonis Var. 1	8.7	1	9	41	50.08	130	49	18.8	1	0.07
466	70 R P L	9.0	1	9	42	42.08	130	47	19.2	1	0.23
467		9.0	3	9	43	27.09	143	56	50.4	3	0.21
468		7.7	1	9	43	34.18	143	45	55.2	1	0.19
469		8.8	1	9	45	55.93	120	2	51.8	1	0.22
470	70 R P L	6.5		9	46	13.04	5	25	49.2	3	0.31
471	IX 1057 W B E	9.2	2	9	46	26.54	129	6	56.1	2	0.18
472		7.3	3	9	49	44.87	85	6	12.1	3	0.14
473		7.6	3	9	49	53.40	129	47	30.0	3	0.27
474		5.0		9	53	1.46	81	18	17.5	10	0.19
475	29 Leonis π	9.3	1	9	53	52.32	152	6	48.9	1	0.27
476	4445 Taylor	8.1	4	9	54	43.19	147	28	40.8	1	0.19
477		8.3	1	9	56	26.50	144	3	50.4	1	0.18
478		9.0	1	9	57	7.36	129	56	40.4	1	0.16
479		8.5	1	9	57	51.23	115	36	1.3	1	0.25
480	4476 Taylor	8.8	2	9	58	26.00	150	38	57.9	2	0.30
481	14 Sextantis	6.0		9	59	40.60	83	43	36.5	1	0.11
482	31 Leonis A	5.0		10	0	41.11	79	20	15.0	1	0.21
483	32 Leonis α (<i>Regulus</i>)	1.3		10	1	7.55	77	22	10.5	14	0.25
484	4588 Taylor	9.0	1	10	2	46.64	129	57	33.4	1	0.16
485		7.5	3	10	6	9.42	129	19	27.1	3	0.20
486		9.1	1	10	9	1.46	139	51	41.8	1	0.18
487		5.9		10	9	20.72	5	3	38.2	5	0.48
488	72 R P L	8.8	2	10	9	47.74	128	36	58.0	2	0.25
489	4577 Taylor	9.0	1	10	10	15.97	139	51	9.0	1	0.28
490	41 Leonis γ	2.5		10	10	28.18	69	28	19.9	12	0.24

464 — R Leonis Var. 1 — Period 312 days — Range 5th to 10th magnitude

470 — 1461 Carington

472 — Comparison star for Asia in 1864

487 — 1620 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
456		+ 2 4135	+ 0 0068		+ 15 858	+ 0 208		
457	4259 Taylor	+ 2 1545	+ 0 0063		+ 16 014	+ 0 182		3800
458		+ 2 4011	+ 0 0072		+ 16 041	+ 0 208		
459		+ 2 4054	+ 0 0072		+ 16 064	+ 0 208		
460	14 Leonis σ	+ 3 2197	- 0 0093	- 0 013	+ 16 115	+ 0 273	+ 0 04	3812
461		+ 2 3939	+ 0 0075		+ 16 160	+ 0 200		
462		+ 1 5939	- 0 0020		+ 16 203	+ 0 180		
463	17 Leonis ϵ	+ 3 4239	- 0 0180	- 0 004	+ 16 334	+ 0 282	+ 0 02	3831
464	R Leonis Var 1	+ 3 2356	- 0 0101		+ 16 440	+ 0 263		3845
465		+ 2 4172	+ 0 0083		+ 16 520	+ 0 193		
466		+ 2 4214	+ 0 0084		+ 16 562	+ 0 192		
467		+ 2 0414	+ 0 0075		+ 16 599	+ 0 180		
468		+ 2 0490	+ 0 0075		+ 16 605	+ 0 180		
469		+ 2 4733	+ 0 0086		+ 16 720	+ 0 192		
470	70 R 1 L	+ 10 8196	- 1 5902		+ 16 738	+ 0 860		
471		+ 2 4738	+ 0 0086		+ 16 740	+ 0 192		
472	IX 1057 W B E	+ 3 1337	- 0 0062		+ 16 903	+ 0 239		
473	4402 Taylor	+ 2 4732	+ 0 0091		+ 16 909	+ 0 187		
474	29 Leonis π	+ 3 1796	- 0 0080	- 0 003	+ 17 055	+ 0 236	0 03	3415
475		+ 1 7509	+ 0 0034		+ 17 094	+ 0 127		
476	1445 Taylor	+ 1 9821	+ 0 0088		+ 17 133	+ 0 143		
477		+ 2 1251	+ 0 0102		+ 17 210	+ 0 152		
478		+ 2 5001	+ 0 0099		+ 17 240	+ 0 179		
479	4476 Taylor	+ 2 0799	+ 0 0100		+ 17 273	+ 0 147		
480		+ 1 8693	+ 0 0067		+ 17 299	+ 0 131		
481	14 Sextantis	+ 3 1456	- 0 0066	- 0 005	+ 17 355	+ 0 222	+ 0 01	3449
482	31 Leonis A	+ 3 1973	- 0 0091	- 0 009	+ 17 398	+ 0 225	+ 0 05	3457
483	32 Leonis α (Regulus)	+ 3 2205	- 0 0102	- 0 019	+ 17 417	+ 0 225	- 0 01	3459
484		+ 2 5238	+ 0 0106		+ 17 488	+ 0 172		
485	4538 Taylor	+ 2 5503	+ 0 0109		+ 17 631	+ 0 169		
486		+ 2 3340	+ 0 0131		+ 17 749	+ 0 150		
487	72 R P L	+ 10 0817	- 1 6686	- 0 079	+ 17 762	+ 0 675	+ 0 05	3465
488	4577 Taylor	+ 2 5782	+ 0 0112		+ 17 781	+ 0 166		
489		+ 2 3413	+ 0 0134		+ 17 800	+ 0 149		
490	41 Leonis γ^1	+ 3 2933	- 0 0143	+ 0 019	+ 17 888	+ 0 208	+ 0 15	3523

481 — Proper Motions adopted from ' Greenwich Catalogue

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
491	43 Leonis	6.5		10	15	53.40	82	46	5.1	2	0.07
492		9.2	2	10	16	8.20	75	24	30.6	2	0.26
493		8.9	2	10	16	11.79	129	16	16.5	2	0.17
494	4653 Taylor	8.4	1	10	18	1.94	151	23	10.5	1	0.18
495	45 Leonis	6.0		10	20	27.87	79	32	44.1	3	0.14
496		9.0	1	10	21	55.82	146	59	1.4	1	0.28
497	30 Sextantis	6.0		10	23	20.43	89	56	25.8	2	0.22
498		10.0	1	10	23	22.20	76	5	17.7	2	0.21
499	47 Leonis <i>p</i>	4.3		10	25	38.86	79	59	41.4	10	0.26
500		9.2	1	10	29	12.38	147	54	36.0	1	0.28
501		9.6	2	10	34	52.15	139	16	38.4	2	0.30
502		9.2	1	10	35	22.25	137	19	31.7	1	0.32
503	36 Sextantis	6.0		10	38	8.91	86	47	51.7	1	0.22
504		8.0	3	10	38	47.07	144	50	21.1	3	0.28
505	η Argus Var 1			10	39	47.45	148	58	13.4	3	0.23
506		9.0	1	10	41	25.52	146	23	11.9	1	0.20
507	53 Leonis <i>l</i>	6.0		10	42	6.36	78	44	10.3	11	0.26
508	4886 Taylor	7.0	1	10	42	47.47	137	2	0.2	1	0.17
509		8.1	3	10	45	4.13	141	45	4.6	3	0.31
510		8.4	1	10	46	2.79	141	39	51.2	1	0.32
511		9.0	1	10	47	52.85	150	5	33.6	1	0.30
512		8.9	1	10	47	59.18	129	29	12.6	1	0.28
513		9.0	1	10	50	16.20	144	30	30.0	1	0.22
514	4955 Taylor	6.8	1	10	50	40.47	147	19	36.3	1	0.28
515		9.0	1	10	52	15.94	143	36	15.0	1	0.23
516		8.6	2	10	52	52.74	139	32	46.5	2	0.31
517	59 Leonis <i>c</i>	5.5		10	53	41.73	83	10	6.9	2	0.14
518	61 Leonis <i>p</i>	5.5		10	54	53.58	91	45	12.8	1	0.07
519	50 Ursae Majoris <i>a</i>	2.0		10	55	18.55	27	30	57.2	3	0.30
520		8.2	1	10	56	59.48	145	32	27.4	1	0.36
521		9.3	1	10	57	1.96	145	35	40.0	1	0.32
522	4576 Lacaille	7.9	2	10	57	48.85	129	34	33.1	2	0.27
523	63 Leonis χ	5.0		10	58	0.03	81	55	46.5	11	0.25
524		9.2	1	10	58	11.95	140	59	14.9	1	0.32
525	65 Leonis <i>p</i> ³	5.5		10	59	57.96	87	18	20.9	1	0.30

505 — η Argus Var 1 — Irregularly variable from 1st to 9th magnitude

[274]

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
491	43 Leonis	+ 3 1465	- 0 0068	- 0 001	+ 18 021	+ 0 194	+ 0 09	3544
492		+ 3 2°45	- 0 0110		+ 18 030	+ 0 198		
493		+ 2 5937	+ 0 0121		+ 18 033	+ 0 168		
494	4653 Taylor	+ 2 0173	+ 0 0129		+ 18 103	+ 0 119		3575
495	45 Leonis	+ 3 1759	- 0 0084	- 0 002	+ 18 198	+ 0 187	+ 0 01	
496		+ 2 2182	+ 0 0160		+ 18 247	+ 0 126		
497	30 Sextantis	+ 3 0726	- 0 0030	- 0 004	+ 18 °97	+ 0 175	+ 0 03	3597
498		+ 3 2076	- 0 0102		+ 18 298	+ 0 183		
499	47 Leonis ρ	+ 3 1664	- 0 0080	0 000	+ 18 380	+ 0 173	+ 0 03	
500		+ 2 2483	+ 0 0181		+ 18 502	+ 0 119		3609
501		+ 2 5083	+ 0 0182		+ 18 687	+ 0 125		
502		+ 2 5186	+ 0 0177		+ 18 703	+ 0 126		
503	36 Sextantis	+ 3 0982	- 0 0040	- 0 006	+ 18 789	+ 0 150	+ 0 01	3684
504		+ 2 4134	+ 0 0207		+ 18 809	+ 0 114		
505	η Argus Var 1	+ 2 3100	+ 0 0215	- 0 003	+ 18 839	+ 0 107	+ 0 01	
506		+ 2 3959	+ 0 0218		+ 18 888	+ 0 109		3708
507	53 Leonis <i>l</i>	+ 3 1608	- 0 0080	- 0 003	+ 18 903	+ 0 145	+ 0 02	
508	4856 Taylor	+ 2 3976	+ 0 0190		+ 18 928	+ 0 117		
509		+ 2 5274	+ 0 0213		+ 18 993	+ 0 110		
510		+ 2 5359	+ 0 0215		+ 19 020	+ 0 109		
511		+ 2 3526	+ 0 0246		+ 19 071	+ 0 093		
512		+ 2 7316	+ 0 0164		+ 19 073	+ 0 115		
513		+ 2 5104	+ 0 0238		+ 19 134	+ 0 102		
514	4955 Taylor	+ 2 4510	+ 0 0250		+ 19 145	+ 0 097		
515		+ 2 5443	+ 0 0239		+ 19 187	+ 0 100		
516		+ 2 6194	+ 0 0222		+ 19 201	+ 0 102		
517	59 Leonis <i>c</i>	+ 3 1178	- 0 0052	- 0 005	+ 19 221	+ 0 122	+ 0 06	
518	61 Leonis p^1	+ 3 0606	- 0 0007	0 000	+ 19 251	+ 0 117	+ 0 04	3775
519	50 Ursa Majoris α	+ 3 7869	- 0 0821	- 0 017	+ 19 261	+ 0 144	+ 0 09	
520		+ 2 5431	+ 0 0262		+ 19 302	+ 0 093		
521		+ 2 5424	+ 0 0263		+ 19 303	+ 0 092		3796
522	4576 Lacaille	+ 2 7753	+ 0 0179		+ 19 321	+ 0 100		
523	63 Leonis χ	+ 3 1226	- 0 0056	- 0 024	+ 19 326	+ 0 113	+ 0 08	
524		+ 2 6324	+ 0 0242		+ 19 330	+ 0 094		3796
525	65 Leonis p^3	+ 3 0383	- 0 0028	- 0 028	+ 19 371	+ 0 109	+ 0 08	

491 — 495 — 497 — 525 — Proper Motions adopted from *Greenwich Catalogues* ,505 — Proper Motions from Mr Stone's list *Mem R A S* Vol 42518 — Proper Motions from Mr Stone's list *"Mem R A S"* Vol 33

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Solar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
526	21367 Lalande	9.7	1	11	0	36.53	147	13	43.7	1	0.33
527		8.0	1	11	3	18.75	78	5	47.8	1	0.37
528		8.2	1	11	4	20.19	105	14	31.1	1	0.37
529		8.8	1	11	5	18.86	143	49	7.7	1	0.33
530	5092 Taylor	9.9	2	11	5	41.10	83	50	24.8	2	0.22
531	69 Leonis <i>p</i> ^s	5.5		11	6	47.83	89	19	48.4	1	0.14
532	68 Leonis <i>δ</i>	2.5		11	6	52.28	68	43	55.2	10	0.25
533	74 Leonis <i>φ</i>	8.2	1	11	7	7.12	145	40	14.6	1	0.33
534		8.0	1	11	8	34.11	150	50	49.2	1	0.36
535		9.8	1	11	9	28.70	145	55	13.9	1	0.34
536		4.7		11	9	44.90	92	54	32.0	4	0.20
537	12 Crateris <i>δ</i>	9.8	1	11	10	31.90	141	8	35.7	1	0.32
538		9.0	1	11	11	8.16	127	38	22.5	1	0.32
539		3.3		11	12	32.57	104	2	34.6	8	0.26
540		7.9	3	11	12	46.58	129	32	6.8	3	0.35
541	4726 Lacaille	7.6	2	11	16	5.21	145	51	29.0	2	0.33
542	5220 Taylor	8.1	3	11	19	0.51	131	55	30.8	3	0.34
543		8.6	1	11	19	24.95	129	30	57.8	1	0.32
544		9.5	1	11	21	41.86	128	22	47.4	1	0.24
545		8.1	4	11	22	7.66	129	4	15.7	4	0.30
546	87 Leonis <i>e</i>	9.0	1	11	22	48.14	145	53	44.9	1	0.32
547		9.0	1	11	23	11.85	142	52	33.9	1	0.32
548		5.5		11	23	21.88	92	15	13.9	1	0.37
549		9.1	2	11	24	35.16	146	8	57.4	2	0.34
550	91 Leonis <i>v</i>	9.1	2	11	26	15.02	143	51	15.2	2	0.33
551		10.2	1	11	26	39.88	23	17	32.2	1	0.32
552		8.5	1	11	29	50.97	149	15	40.3	1	0.32
553		4.7		11	29	59.13	90	4	24.3	13	0.27
554	5384 Taylor	9.2	1	11	32	9.19	144	14	32.4	1	0.32
555		8.8	1	11	33	57.32	127	49	16.1	1	0.33
556		8.8	1	11	34	20.24	144	20	39.4	1	0.25
557		9.0	1	11	36	3.21	139	40	16.5	1	0.33
558	5384 Taylor	6.0	2	11	37	2.85	151	44	7.3	2	0.35
559		8.0	1	11	38	9.35	149	38	49.4	1	0.34
560		9.8	1	11	38	42.13	129	34	5.1	1	0.32

551—Comparison star for Comet 2 1861

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
526		+ 2 5398	+ 0 0282		+ 19 385	+ 0 087		
527	21367 Lalande	+ 3 1411	- 0 0075		+ 19 445	+ 0 104		
528		+ 2 5097	+ 0 0313		+ 19 466	+ 0 080		
529	5092 Taylor	+ 2 6400	+ 0 0276		+ 19 487	+ 0 088		
530		+ 3 1059	- 0 0043		+ 19 494	+ 0 098		
531	69 Leonis <i>p</i> ^s	+ 3 0757	- 0 0013	0 000	+ 19 517	+ 0 095	0 00	3832
532	68 Leonis <i>δ</i>	+ 3 1916	- 0 0132	+ 0 011	+ 19 519	+ 0 098	+ 0 14	3834
533		+ 2 6243	+ 0 0294		+ 19 524	+ 0 079		
534		+ 2 5387	+ 0 0441		+ 19 552	+ 0 071		
535		+ 2 6400	+ 0 0304		+ 19 570	+ 0 076		
536	74 Leonis <i>φ</i>	+ 3 0573	+ 0 0006	- 0 009	+ 19 575	+ 0 089	+ 0 04	3848
537		+ 2 7167	+ 0 0273		+ 19 590	+ 0 077		
538		+ 2 8539	+ 0 0136		+ 19 601	+ 0 080		
539	12 Crateris <i>δ</i>	+ 3 0032	+ 0 0064	- 0 009	+ 19 627	+ 0 081	- 0 18	3859
540		+ 2 8465	+ 0 0200		+ 19 631	+ 0 077		
541	4726 Lacaille	+ 2 6966	+ 0 0324		+ 19 638	+ 0 067		
542	5220 Taylor	+ 2 8585	+ 0 0225		+ 19 735	+ 0 060		
543		+ 2 8778	+ 0 0209		+ 19 741	+ 0 065		
544		+ 2 8959	+ 0 0205		+ 19 776	+ 0 061		
545		+ 2 8935	+ 0 0209		+ 19 781	+ 0 060		
546		+ 2 7530	+ 0 0344		+ 19 791	+ 0 056		
547		+ 2 7896	+ 0 0318		+ 19 797	+ 0 056		
548	87 Leonis <i>e</i>	+ 3 0637	+ 0 0011	- 0 001	+ 19 799	+ 0 062	+ 0 03	3916
549		+ 2 7652	+ 0 0352		+ 19 816	+ 0 053		
550		+ 2 8035	+ 0 0335		+ 19 838	+ 0 051		
551		+ 3 5222	- 0 0889		+ 19 843	+ 0 065		
552		+ 2 7772	+ 0 0406		+ 19 881	+ 0 044		
553	91 Leonis <i>v</i>	+ 3 0718	+ 0 0003	- 0 003	+ 19 884	+ 0 049	- 0 03	3946
554		+ 2 8471	+ 0 0356		+ 19 907	+ 0 041		
555		+ 2 9544	+ 0 0219		+ 19 925	+ 0 040		
556		+ 2 8638	+ 0 0364		+ 19 929	+ 0 037		
557		+ 2 9078	+ 0 0320		+ 19 945	+ 0 035		
558	5384 Taylor	+ 2 8235	+ 0 0470		+ 19 954	+ 0 032		3976
559		+ 2 8548	+ 0 0444		+ 19 964	+ 0 030		
560		+ 2 9696	+ 0 0237		+ 19 969	+ 0 031		

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
561		7.9	1	11	40	56.8 ⁹²	149	52	24	1	0.38
562		8.7	1	11	41	9.03	126	30	25.6	1	0.26
563		8.2	2	11	41	12.36	129	32	6.3	2	0.29
564	94 Leonis β (<i>Deneb</i>)	2.0		11	42	7.21	70	40	5.0	11	0.30
565		8.5	2	11	43	8.28	143	40	15.7	2	0.30
566	5 Virginis β	3.5		11	43	36.67	87	28	8.6	4	0.22
567	5427 Taylor	6.0	1	11	44	5.15	94	34	38.6	1	0.38
568		8.7	1	11	44	44.16	129	2	40.7	1	0.33
569	5433 Taylor	7.7	1	11	44	51.57	129	33	3.0	1	0.32
570		9.3	1	11	45	51.40	142	31	0.6	1	0.34
571	64 Ursæ Majoris γ	2.3		11	46	39.67	35	32	56.9	1	0.30
572		8.7	2	11	49	56.96	128	5	29.6	2	0.26
573		8.4	1	11	51	23.65	128	52	34.2	1	0.26
574		9.3	1	11	51	36.57	144	12	54.1	1	0.32
575		8.0		11	52	20.94	154	32	32.2	1	0.36
576		9.7	2	11	53	50.17	129	35	50.1	2	0.35
577		9.0	3	11	56	23.61	128	29	55.8	3	0.28
578	5534 Taylor	8.0	1	11	56	49.55	143	57	19.9	1	0.33
579	4995 Lacaille	7.8	1	11	56	54.06	142	44	26.8	1	0.32
580	5535 Taylor	7.9	2	11	57	3.47	70	25	29.7	2	0.29
581	89 R P L	6.3		11	57	51.22	3	39	33.6	3	0.49
582		8.2	2	11	59	1.22	128	27	45.4	2	0.24
583		8.5	2	11	59	44.33	144	16	11.2	2	0.35
584		9.0	1	12	1	37.16	130	1	34.8	1	0.34
585	5041 Lacaille	7.9	1	12	2	32.88	141	23	14.3	1	0.29
586		9.0	1	12	2	37.25	141	5	39.5	1	0.34
587	10 Virginis	6.0		12	2	43.10	87	20	18.4	1	0.30
588	2 Corvi ϵ	3.0		12	3	8.08	111	51	47.5	8	0.33
589		9.9	1	12	6	3.08	130	11	7.8	1	0.34
590		8.2	1	12	6	12.47	138	27	32.0	1	0.27
591	5613 Taylor	8.0	1	12	7	55.44	130	22	49.0	1	0.33
592	69 Ursæ Majoris δ	3.5		12	8	40.98	32	12	42.4	2	0.37
593		8.8	1	12	8	50.14	144	20	13.0	1	0.33
594	13 Virginis	6.3		12	11	42.07	90	1	51.3	2	0.22
595	5648 Taylor	6.9	3	12	12	31.28	152	5	57.5	3	0.34

581—1850 Groombridge

595—Double. The 3^d and brighter star observed.

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
561		+ 2 8808	+ 0 0458		+ 19 986	+ 0 026		
562		+ 2 9908	+ 0 0218		+ 19 987	+ 0 027		
563		+ 2 9817	+ 0 0240		+ 19 988	+ 0 027		
564	94 Leonis β (<i>Deneb</i>)	+ 3 1006	- 0 0074	- 0 036	+ 19 994	+ 0 025	+ 0 10	3995
565		+ 2 9379	+ 0 0382		+ 20 001	+ 0 022		
566	5 Virginis β	+ 3 0763	- 0 0003	+ 0 048	+ 20 004	+ 0 023	+ 0 28	4002
567	5427 Taylor	+ 3 0647	+ 0 0034		+ 20 007	+ 0 022		4006
568		+ 3 0000	+ 0 0241		+ 20 011	+ 0 020		
569	5433 Taylor	+ 2 9992	+ 0 0246		+ 20 012	+ 0 020		
570		+ 2 9646	+ 0 0373		+ 20 017	+ 0 017		
571	64 Ursæ Majoris γ	+ 3 1808	- 0 0433	+ 0 011	+ 20 022	+ 0 017	0 00	4017
572		+ 3 0261	+ 0 0241		+ 20 036	+ 0 010		
573		+ 3 0317	+ 0 0249		+ 20 041	+ 0 007		
574		+ 3 0042	+ 0 0410		+ 20 042	+ 0 007		
575		+ 2 9783	+ 0 0604		+ 20 044	+ 0 005		
576		+ 3 0423	+ 0 0258		+ 20 048	+ 0 003		
577		+ 3 0553	+ 0 0253		+ 20 053	- 0 002		
578	5534 Taylor	+ 3 0467	+ 0 0421		+ 20 053	- 0 003		
579	4995 Lacaille	+ 3 0433	+ 0 0404		+ 20 053	- 0 003		
580	5535 Taylor	+ 3 0782	- 0 0089		+ 20 054	- 0 003		
581	89 R P L	+ 3 2674	- 0 5247		+ 20 054	- 0 005		4070
582		+ 3 0675	+ 0 0255		+ 20 055	- 0 007		
583		+ 3 0699	+ 0 0434		+ 20 055	- 0 009		
584		+ 3 0800	+ 0 0273		+ 20 054	- 0 012		
585	5041 Lacaille	+ 3 0907	+ 0 0400		+ 20 054	- 0 014		
586		+ 3 0910	+ 0 0396		+ 20 054	- 0 015		
587	10 Virginis	+ 3 0714	+ 0 0007	- 0 001	+ 20 054	- 0 013	+ 0 21	4094
588	2 Corvi ϵ	+ 3 0793	+ 0 0142	- 0 005	+ 20 054	- 0 016	- 0 01	4097
589		+ 3 1019	+ 0 0280		+ 20 048	- 0 021		
590		+ 3 1129	+ 0 0369		+ 20 048	- 0 022		
591	5613 Taylor	+ 3 1114	+ 0 0284		+ 20 043	- 0 025		
592	69 Ursæ Majoris δ	+ 2 9917	- 0 0425	+ 0 015	+ 20 040	- 0 026	+ 0 04	4123
593		+ 3 1439	+ 0 0460		+ 20 040	- 0 027		
594	13 Virginis	+ 3 0721	+ 0 0026	0 000	+ 20 029	- 0 032	+ 0 04	4137
595	5648 Taylor	+ 3 2100	+ 0 0640		+ 20 024	- 0 085		

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
596	15 Virginis η	3.7		12	12	56.91	89	54	38.9	6	0.32
597		9.5	1	12	14	3.66	143	44	19.8	1	0.31
598	5119 Lacaille	8.4	1	12	15	21.68	138	34	15.4	1	0.27
599		8.0	1	12	16	46.01	147	9	46.4	1	0.37
600		8.7	2	12	17	24.22	24	43	7.3	2	0.24
601		9.8	1	12	18	39.10	143	30	8.0	1	0.31
602		9.5		12	19	0.47	129	43	47.8	1	0.32
603	α Crucis (1st)	2.3		12	19	3.52	152	20	42.4	2	0.34
604		8.0	2	12	21	6.81	145	42	19.0	2	0.37
605		8.3	2	12	24	38.58	150	58	38.9	2	0.32
606		7.0	1	12	25	56.04	28	2	1.0	1	0.33
607	21 Virginis γ	6.0	2	12	26	45.81	98	42	5.4	5	0.27
608		8.0	1	12	27	4.41	38	0	26.8	1	0.37
609	9 Corvi β	2.3		12	27	14.86	112	38	38.9	4	0.31
610		9.2	1	12	27	49.34	140	55	32.3	1	0.34
611	T Ursæ Majoris Var 3	8.3	3	12	30	11.13	29	45	49.5	3	0.32
612		9.2	1	12	30	50.84	142	19	41.5	1	0.39
613	R Virginis Var 2	7.3	4	12	31	35.85	82	15	47.4	4	0.36
614		9.8	2	12	32	8.58	29	14	20.1	2	0.33
615	26 Virginis χ	6.0	1	12	32	13.76	97	14	48.0	4	0.28
616		7.0	1	12	32	51.66	28	13	23.1	1	0.32
617	5830 Taylor	7.5	1	12	34	26.89	144	0	51.4	1	0.36
618	XII 592 W B E	8.0	3	12	36	1.30	93	17	48.6	3	0.29
619	S Ursæ Majoris Var 2	9.7	2	12	37	58.32	28	9	42.2	2	0.32
620		9.6	3	12	39	36.25	94	1	53.6	3	0.26
621		7.9	1	12	40	49.04	141	52	54.0	1	0.37
622		8.0	1	12	41	40.06	141	49	33.0	1	0.35
623		9.2	1	12	42	3.41	147	16	27.3	1	0.38
624		8.7	1	12	42	47.38	142	51	56.9	1	0.36
625		9.3	1	12	42	51.08	139	25	15.5	1	0.40
626		8.3	1	12	43	17.33	129	7	50.7	1	0.36
627		8.9	4	12	43	26.08	83	19	14.6	4	0.36
628	U Virginis Var 3	9.3	3	12	44	11.78	83	42	20.5	3	0.34
629	2922 Radcliffe	6.2	1	12	45	6.74	26	16	27.1	1	0.38
630		9.7	3	12	45	10.12	83	19	6.9	3	0.30

600—629—Comparison stars for Comet 2 1861

611—T Ursæ Majoris Var 3—Period 255 days—Range 7th to 12th magnitude

613—R Virginis Var 2—Period 146 days—Range 6.5 to 11th magnitude

618—620—Comparison stars for Hestia in 1864

619—S Ursæ Majoris Var 2—Period 225 days—Range 7th to 12th magnitude

628—U Virginis Var 3—Period 207 days—Range 8th to 13 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
596	15 Virginis η	+ 3 0719	+ 0 0027	- 0 007	+ 20 023	- 0 035	+ 0 03	4145
597		+ 3 1838	+ 0 0464		+ 20 018	- 0 038		
598	5119 Lacaille	+ 3 1735	+ 0 0388		+ 20 010	- 0 040		
599		+ 3 2234	+ 0 0535		+ 20 001	- 0 044		
600		+ 2 8517	- 0 0523		+ 19 997	- 0 041		
601		+ 3 2190	+ 0 0464		+ 19 989	- 0 047		4187
602		+ 3 1641	+ 0 0292		+ 19 986	- 0 047		
603	α Crucis (1st)	+ 3 2837	+ 0 0680	- 0 006	+ 19 996	- 0 050	+ 0 01	
604		+ 3 2524	+ 0 0518		+ 19 970	- 0 053		
605		+ 3 3307	+ 0 0658		+ 19 940	- 0 061		
606		+ 2 7885	- 0 0420		+ 19 927	- 0 055		4230
607	21 Virginis ζ	+ 3 0960	+ 0 0080	- 0 009	+ 19 918	- 0 062	0 00	
608		+ 2 8705	- 0 0294		+ 19 916	- 0 058		
609	9 Corvi β	+ 3 1381	+ 0 0164	- 0 008	+ 19 914	- 0 064	+ 0 07	4234
610		+ 3 2715	+ 0 0447		+ 19 907	- 0 067		
611	T Ursæ Majoris Var 3	+ 2 7650	4 0 0377		+ 19 881	- 0 062		4257
612		+ 3 3043	+ 0 0476		+ 19 873	- 0 074		
613	R Virginis Var 2	+ 3 0471	- 0 0008		+ 19 865	- 0 070		
614		+ 2 7382	- 0 0376		+ 19 858	- 0 065		
615	26 Virginis χ	+ 3 0959	+ 0 0075	- 0 006	+ 19 857	- 0 072	+ 0 04	
616		+ 2 7161	- 0 0384		+ 19 850	- 0 066		4266
617	5830 Taylor	+ 3 3478	+ 0 0518		+ 19 829	- 0 082		
618	XII 592 W B E	+ 3 0841	+ 0 0056		+ 19 808	- 0 080		
619	S Ursæ Majoris Var 2	+ 2 6602	- 0 0360		+ 19 781	- 0 073		
620		+ 3 0888	+ 0 0062		+ 19 756	- 0 086		
621		+ 3 3740	+ 0 0490		+ 19 738	- 0 095		
622		+ 3 3795	+ 0 0490		+ 19 725	- 0 097		
623		+ 3 4517	+ 0 0611		+ 19 718	- 0 100		
624		+ 3 3998	+ 0 0512		+ 19 706	- 0 100		
625		+ 3 3622	+ 0 0449		+ 19 705	- 0 099		
626		+ 3 2763	+ 0 0313		+ 19 699	- 0 098		
627		+ 3 0426	+ 0 0009		+ 19 696	- 0 090		
628	U Virginis Var 3	+ 3 0438	+ 0 0012		+ 19 683	- 0 093		
629	2922 Radcliffe	+ 2 5424	- 0 0344		+ 19 668	- 0 080		
630		+ 3 0414	+ 0 0010		+ 19 667	- 0 095		

603 — Proper Motions adopted from *Stone's Catalogue*615 — Proper Motions from Mr Stone's list *Mem R A S* Vol 33

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
631	40 Virginis ψ	5.3		12	47	16.98	98	47	58.3	2	0.30
632	99 R. P. L.	5.6		12	48	9.91	5	50	52.8	1	0.38
633		7.8	1	12	49	23.85	145	34	11.3	1	0.37
634	12 Canum Venaticorum	3.0		12	49	39.61	50	56	48.11	11	0.36
635	5974 Taylor	8.7	1	12	51	54.65	143	38	34.3	1	0.41
16 49	636	8.8	1	12	53	16.48	143	40	22.3	1	0.38
	637	9.2	1	12	54	37.89	139	18	22.8	1	0.39
	638	10.3	2	12	56	11.01	113	12	31.9	2	0.31
	639	5381 Lacaille	1	12	57	7.84	129	57	6.1	1	0.40
6 23	640	9.1	2	12	58	6.22	124	28	41.6	2	0.37
	641	50 Virginis	2	13	2	38.28	99	36	11.3	3	0.33
	642	51 Virginis θ		13	2	54.57	97	48	44.1	11	0.36
	643		1	13	4	32.13	138	10	32.3	1	0.41
45 48	644	W Virginis Var 1	3	13	6	54.18	105	49	54.7	1	0.29
	645		2	13	9	45.48	129	56	15.7	2	0.37
	646	58 Virginis		13	10	19.73	99	49	42.7	1	0.28
	647	101 R. P. L.		13	10	26.11	1	37	17.6	3	0.40
12 57	648	6129 Taylor	2	13	12	12.96	130	28	30.4	2	0.38
	649		1	13	12	53.10	122	56	34.2	1	0.33
	650	5503 Lacaille	1	13	14	8.92	125	23	51.4	2	0.35
	651	13563 O. A. N.	1	13	15	24.40	27	53	14.0	1	0.41
	652		1	13	15	47.75	145	12	51.0	1	0.39
	653	67 Virginis α (Spica)		13	18	1.85	100	27	1.9	14	0.35
	654	V Virginis Var 7	1	13	20	46.90	92	27	59.2	1	0.29
	655	R Hydrae Var 1	1	13	22	17.30	112	34	38.9	1	0.37
	656		1	13	23	18.12	88	38	7.3	1	0.32
	657	6257 Taylor	1	13	25	36.07	148	48	21.6	1	0.42
	658	76 Virginis h		13	25	48.49	99	27	47.4	3	0.35
	659	S Virginis Var 6	2	13	25	53.98	96	29	41.9	2	0.34
	660		1	13	26	37.79	131	35	11.9	1	0.42
	661	79 Virginis 3		13	27	45.87	89	53	58.7	15	0.36
	662		2	13	36	31.31	144	38	18.5	2	0.41
	663	6363 Taylor	1	13	36	38.28	147	33	27.4	1	0.40
	664		2	13	37	30.37	123	48	3.4	2	0.37
31 25	665		1	13	37	31.30	128	40	16.9	1	0.38

632 — 1940 Groombridge

644 — W Virginis Var 1 — Irregularly variable from 7th to 10.5 magnitude

647 — 2006 Groombridge

651 — Comparison star for Comet 2 1861

654 — V Virginis Var 7 — Period 251 days — Range 7th to below 13th magnitude

655 — R Hydrae Var 1 — Period about 15 months — Range 4th to 10th magnitude

656 — Observed by mistake for Europa

659 — S Virginis Var 6 — Period 374 days — Range 6th to 12th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
631	40 Virginis ψ	+ 3 1145	+ 0 0092	- 0 002	+ 19 630	- 0 101	+ 0 04	4330
632	99 R P L	+ 0 3486	+ 0 2263	- 0 017	+ 19 613	- 0 018	- 0 04	4342
633		+ 3 4892	+ 0 0586		+ 19 591	- 0 117		
634	12 Crn Venaticorum	+ 2 8388	- 0 0152	- 0 023	+ 19 587	- 0 098	- 0 06	4346
635	5974 Taylor	+ 3 4799	+ 0 0546		+ 19 542	- 0 122		
636		+ 3 4910	+ 0 0549		+ 19 515	- 0 124		
637		+ 3 4392	+ 0 0465		+ 19 488	- 0 127		
638		+ 3 2112	+ 0 0184		+ 19 455	- 0 122		
639	5381 Lacaille	+ 3 3484	+ 0 0335		+ 19 436	- 0 128		
640		+ 3 3023	+ 0 0278		+ 19 413	- 0 129		
641	50 Virginis	+ 3 1331	+ 0 0104	- 0 001	+ 19 310	- 0 131	+ 0 02	4397
642	51 Virginis θ	+ 3 1025	+ 0 0078	- 0 004	+ 19 305	- 0 132	+ 0 04	4401
643		+ 3 4873	+ 0 0459		+ 19 265	- 0 150		
644	W Virginis Var 1	+ 3 1812	+ 0 0142		+ 19 206	- 0 142		
645		+ 3 4075	+ 0 0346		+ 19 133	- 0 157		
646	58 Virginis	+ 3 1421	+ 0 0108	- 0 007	+ 19 118	- 0 147	- 0 01	4442
647	101 R P L	- 11 2142	+ 8 3584		+ 19 115	+ 0 487		
648	6129 Taylor	+ 3 4257	+ 0 0353		+ 19 067	- 0 163		
649		+ 3 3430	+ 0 0273		+ 19 049	- 0 161		
650	5503 Lacaille	+ 3 3742	+ 0 0298		+ 19 014	- 0 164		
651	13563 O A N	+ 2 2557	- 0 0189		+ 18 980	- 0 114		
652		+ 3 0971	+ 0 0629		+ 18 968	- 0 183		
653	67 Virginis α (<i>Spica</i>)	+ 3 1543	+ 0 0116	- 0 005	+ 18 904	- 0 163	+ 0 04	4480
654	V Virginis Var 7	+ 3 0919	+ 0 0073		+ 18 822	- 0 164		
655	R Hydræ Var 1	+ 3 2674	+ 0 0192	+ 0 002	+ 18 777	- 0 176	- 0 01	4501
656		+ 3 0607	+ 0 0055		+ 18 746	- 0 267		
657	6257 Taylor	+ 3 8778	+ 0 0761		+ 18 672	- 0 215		
658	76 Virginis h	+ 3 1536	+ 0 0113	- 0 004	+ 18 666	- 0 176	+ 0 02	4521
659	S Virginis Var 6	+ 3 1278	+ 0 0096		+ 18 663	- 0 175		
660		+ 3 5099	+ 0 0379		+ 18 639	- 0 197		
661	79 Virginis 3	+ 3 0711	+ 0 0064	- 0 019	+ 18 603	- 0 176	- 0 06	4532
662		+ 3 8424	+ 0 0642		+ 18 302	- 0 237		
663	6363 Taylor	+ 3 9329	+ 0 0733		+ 18 298	- 0 243		
664		+ 3 4415	+ 0 0292		+ 18 267	- 0 215		
665		+ 3 5138	+ 0 0346		+ 18 267	- 0 220		

641 — 646 — 658 — Proper Motions from Mr Stone's list *Mem R A S* Vol 33

655 — Proper Motions adopted from "*Greenwich Catalogue*"

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
33 73	666	8.6	2	13	39	13 86 ⁸	122	47	4.2	2	0.36
	667	8.2	2	13	38	33 97 ⁷³	152	45	59.9	2	0.38
	668	9.2	1	13	40	30 30	129	24	0.6	1	0.34
	669	85 Ursæ Majoris η	2.3	13	42	10 62	40	0	25.4	3	0.36
	670		2	13	43	11 39	123	6	31.9	2	0.36
	671		1	13	43	24 14	123	13	4.9	1	0.38
	672			13	44	15 25	127	56	40.9	1	0.41
	673		1	13	45	23 48	128	23	4.5	1	0.41
	674		1	13	45	42 40	122	54	31.3	2	0.38
	675	8 Bootis η	3.0	13	48	12 51	70	55	10.5	13	0.37
4 99	676		2	13	50	11 62	123	43	44.0	2	0.32
	677		1	13	50	40 64	123	43	55.5	1	0.30
	678		1	13	53	7 76	135	10	51.4	1	0.36
	679	93 Virginis τ	4.5	13	54	43 58	87	47	45.3	13	0.38
	680	5794 Lacaille	6.3	13	57	4 30 ¹⁹	152	47	34.6	1	0.39
	681	6585 Taylor	7.7	14	1	22 44	124	14	3.6	1	0.34
	682		2	14	2	25 96	129	4	15.2	2	0.41
	683	U Bootis Var 4	9.5	14	4	21 64	79	32	32.2	3	0.38
	684	6616 Taylor	5.7	14	5	30 32	146	26	48.4	1	0.37
	685	98 Virginis κ	4.3	14	5	38 62 ³	99	38	20.2	2	0.38
38 63	686		1	14	6	8 79	135	1	18.1	1	0.36
	687	16 Bootis α (Archurus)	1.0	14	9	27 55	70	6	30.0	6	0.42
	688	100 Virginis λ	5.0	14	11	45 19	102	44	35.8	5	0.38
	689		1	14	12	30 81	136	49	53.7	1	0.31
	690		2	14	14	34 88	122	35	44.6	2	0.44
	691		1	14	15	19 50	122	11	35.0	1	0.37
	692	6709 Taylor	7.0	14	15	58 65	119	3	19.6	1	0.42
	693	2 Libræ	6.7	14	16	6 76	101	5	28.8	1	0.31
	694	5926 Lacaille	8.3	14	16	40 24	118	59	58.2	3	0.42
	695	6721 Taylor	7.0	14	17	22 38	101	3	1.7	1	0.30
	696		10.0	14	17	24 96	123	13	23.0	1	0.42
	697	6740 Taylor	7.5	14	19	5 08	133	42	56.0	3	0.43
	698		9.3	14	21	57 61	122	33	58.6	1	0.41
	699	5962 Lacaille	7.5	14	22	42 28	129	46	44.0	1	0.32
	700		8.0	14	23	42 53	136	54	23.6	1	0.46

683 — U Bootis Var 4 — Period uncertain — Range 8.7 to 12th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
666		+ 3 1299	+ 0 0283		+ 18 240	- 0 216		
667		+ 4 1552	+ 0 0964		+ 18 299	- 0 261		
668		+ 3 5384	+ 0 0356		+ 18 158	- 0 228		
669	35 Ursæ Majoris η	+ 2 3850	- 0 0103	- 0 012	+ 18 095	- 0 159	+ 0 03	4607
670		+ 3 4517	+ 0 0287		+ 18 055	- 0 227		
671		+ 3 4538	+ 0 0288		+ 18 048	- 0 228		
672		+ 3 5301	+ 0 0341		+ 18 016	- 0 235		
673		+ 3 5421	+ 0 0346		+ 17 972	- 0 238		
674		+ 3 4571	+ 0 0286		+ 17 960	- 0 233		
675	8 Bootis η	+ 2 8617	- 0 0006	- 0 004	+ 17 861	- 0 199	+ 0 36	4648
676		+ 3 4849	+ 0 0295		+ 17 781	- 0 243		
677		+ 3 1866	+ 0 0295		+ 17 762	- 0 244		
678		+ 3 7208	+ 0 0453		+ 17 661	- 0 265		
679	93 Virginis τ	+ 3 0475	+ 0 0064	+ 0 001	+ 17 594	- 0 211	+ 0 07	4672
680	5794 Lacaille	+ 4 3436	+ 0 0996		+ 17 494	- 0 318		
681	6585 Taylor	+ 3 5317	+ 0 0302		+ 17 307	- 0 268		
682		+ 3 6249	+ 0 0357		+ 17 260	- 0 276		
683	U Bootis Var 4	+ 2 9447	+ 0 0035		+ 17 174	- 0 229		
684	6616 Taylor	+ 4 1217	+ 0 0686		+ 17 122	- 0 320		4709
685	98 Virginis κ	+ 3 1905	+ 0 0122	+ 0 001	+ 17 117	- 0 250	- 0 02	4716
686		+ 3 7719	+ 0 0445		+ 17 093	- 0 295		
687	16 Bootis α (Arcturus)	+ 2 8132	+ 0 0004	- 0 079	+ 16 941	- 0 227	+ 1 93	4729
688	100 Virginis λ	+ 3 2365	+ 0 0140	- 0 002	+ 16 832	- 0 264	- 0 02	4743
689		+ 3 5509	+ 0 0477		+ 16 795	- 0 314		
690		+ 3 5458	+ 0 0284		+ 16 696	- 0 293		
691		+ 3 5408	+ 0 0281		+ 16 659	- 0 294		
692	6709 Taylor	+ 3 4875	+ 0 0252		+ 16 627	- 0 292		
693	2 Libræ	+ 3 2188	+ 0 0132	- 0 004	+ 16 621	- 0 270	+ 0 09	4765
694	5926 Lacaille	+ 3 4882	+ 0 0252		+ 16 594	- 0 293		
695	6721 Taylor	+ 3 2194	+ 0 0132		+ 16 559	- 0 272		4772
696		+ 3 5662	+ 0 0292		+ 16 557	- 0 301		
697	6740 Taylor	+ 3 8011	+ 0 0423		+ 16 474	- 0 323		
698		+ 3 5678	+ 0 0285		+ 16 329	- 0 309		
699	5962 Lacaille	+ 3 7213	+ 0 0365		+ 16 291	- 0 324		
700		+ 3 9106	+ 0 0476		+ 16 240	- 0 342		

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Est nations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
701		8.4	2	11	21	12.75	123	48	30.8	2	0.41
702	14634 O A N	7.0	1	14	25	51.40	20	8	24.1	1	0.46
703	25 Bootis ρ	4.0		14	25	58.06	50	1	49.2	8	0.41
704	14652 O A N	8.5	1	14	27	1.13	20	6	57.6	1	0.46
705	R Camelopardi Var 1	10.8	1	14	28	9.31	5	33	16.5	1	0.31
706		8.0	1	14	29	26.79	124	55	30.2	1	0.39
707	α Centauri (2nd)	1.0		14	30	23.07	150	16	21.0	2	0.44
708		8.3	1	14	32	42.12	121	44	17.9	1	0.39
709	α Lupi	5.8	1	14	32	54.02	136	45	6.0	1	0.42
710	36 Bootis ϵ (M ₁₁ ae)	2.3		14	39	28.4	62	21	3.7	11	0.44
711		7.7	2	14	39	20.44	124	9	35.1	2	0.40
712		8.8	2	14	42	21.84	129	6	50.7	2	0.36
713	9 Libræ α	2.3		14	43	21.52	105	28	28.0	12	0.43
714	β Ursæ Minoris Var 1	2.0		14	51	8.11	15	17	10.1	1	0.41
715		9.1	1	14	51	23.24	39	19	38.3	1	0.39
716		9.0	1	14	51	35.46	123	12	48.3	1	0.49
717	6991 Taylor	6.4	1	14	51	52.37	39	48	49.7	1	0.39
718	15004 O A N	7.5	1	14	53	52.88	39	21	8.3	1	0.39
719	15023 O A N	7.5	1	14	55	39.47	27	47	28.9	1	0.46
720	43 Bootis ψ	5.0		14	58	37.08	62	31	14.3	8	0.44
721	7079 Taylor	6.7	1	15	3	19.98	123	7	14.8	1	0.49
722	15138 O A N	9.2	1	15	4	7.39	43	0	6.3	1	0.40
723	24 Libræ ϵ^1	5.3		15	4	28.28	109	16	20.1	2	0.38
724	111 R P L	6.9		15	5	45.19	5	31	23.7	1	0.39
725	27 Libræ β	2.0		15	9	41.44	98	51	43.6	7	0.45
726		9.5	1	15	14	12.39	123	7	30.8	1	0.40
727		8.7	3	15	20	23.57	130	8	34.7	3	0.48
728	32 Libræ ζ^1	4.0		15	20	35.48	106	14	22.2	1	0.46
729		7.5	1	15	21	40.06	129	25	58.8	1	0.40
730	XV 395 W B E	8.9	2	15	21	58.56	101	15	30.5	2	0.54
731	114 R P L	6.9		15	22	29.01	2	14	59.0	1	0.97
732	XV 429 W B E	9.4	2	15	24	2.57	101	28	30.0	2	0.56
733	7240 Taylor	7.5	1	15	24	24.18	130	1	28.8	1	0.36
734	3394 Padelliffe	8.0	1	15	25	3.61	41	49	6.2	1	0.46
735	38 Libræ γ	4.3		15	27	55.27	104	20	0.1	4	0.88

702 — 704 — 719 — 734 — Comparison stars for Comet 2 1862

705 — R Camelopardi Var 1 — Period 266 days — Range 8th to 12th magnitude

714 — β Ursæ Minoris Var 1 — (Kochab) — Supposed to vary irregularly from 2nd to 2.5 magnitude

715 — 717 — 718 — 722 — Comparison stars for Comet 2 1861

724 — 2213 Groombridge

730 — 732 — Comparison stars for Sappho in 1864

731 — 2283 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
701		+ 3 5990	+ 0 0297		+ 16 214	- 0 316		
702	14634 O A N	+ 0 9053	+ 0 0359		+ 16 199	- 0 085		
703	25 Bootis ρ	+ 2 5948	- 0 0015	- 0 008	+ 16 124	- 0 233	- 0 14	4808
704	14652 O A N	+ 0 8876	+ 0 0366		+ 16 068	- 0 084		
705	R Camelopardi Var 1	- 5 2092	+ 1 0886		+ 16 008	- 0 451		
706		+ 2 6386	+ 0 0306		+ 15 941	- 0 329		
707	α Centauri (2nd)	+ 4 4996	+ 0 0878	- 0 476	+ 15 894	- 0 410	- 0 81	4832
708		+ 3 5833	+ 0 0274		+ 15 766	- 0 330		
709	α Lupi	+ 3 9531	+ 0 0472		+ 15 755	- 0 364		4839
710	36 Bootis ϵ (M ν al)	+ 2 6240	- 0 0001	- 0 005	+ 15 417	- 0 252	- 0 01	4876
711		+ 3 6532	+ 0 0294		+ 15 400	- 0 349		
712		+ 3 1796	+ 0 0350		+ 15 227	- 0 366		
713	9 Libræ α	+ 3 3140	+ 0 0154	- 0 007	+ 15 173	- 0 324	+ 0 06	4895
714	β Uisæ Minoris Var 1	- 0 2500	+ 0 1022	- 0 005	+ 14 719	+ 0 018	+ 0 03	4936
715		+ 1 9023	+ 0 0014		+ 14 704	- 0 201		
716		+ 3 6679	+ 0 0250		+ 14 692	- 0 370		
717	6991 Taylor	+ 1 9789	+ 0 0013		+ 14 675	- 0 203		4937
718	15004 O A N	+ 1 9503	+ 0 0017		+ 14 554	- 0 202		
719	15023 O A N	+ 1 8126	+ 0 0151		+ 14 447	- 0 139		
720	43 Bootis ψ	+ 2 5833	+ 0 0010	- 0 013	+ 14 262	- 0 231	0 00	4969
721	7079 Taylor	+ 3 6978	+ 0 0273		+ 13 974	- 0 393		
722	15138 O A N	+ 2 0403	+ 0 0015		+ 13 924	- 0 220		
723	24 Libræ ι^1	+ 3 4090	+ 0 0171	- 0 002	+ 13 902	- 0 364	+ 0 04	4995
724	111 R P I	- 6 9459	+ 1 1880		+ 13 821	+ 0 728		5022
725	27 Libræ β	+ 3 2258	+ 0 0117	- 0 009	+ 13 569	- 0 353	+ 0 01	5034
726		+ 3 7260	+ 0 0264		+ 13 275	- 0 414		
727		+ 3 9370	+ 0 0332		+ 12 865	- 0 447		
728	32 Libræ ζ^1	+ 3 3711	+ 0 0148	+ 0 002	+ 12 852	- 0 384	+ 0 05	5089
729		+ 3 9195	+ 0 0322		+ 12 779	- 0 445		
730	XV 395 W B E	+ 3 2775	+ 0 0124		+ 12 758	- 0 374		
731	114 R I L	- 23 2282	+ 7 7947		+ 12 724	+ 2 614		5140
732	XV 429 W B E	+ 3 2831	+ 0 0125		+ 12 619	- 0 377		
733	7240 Taylor	+ 3 9460	+ 0 0325		+ 12 594	- 0 453		
734	3394 Radcliffe	+ 1 9064	+ 0 0037		+ 12 549	- 0 222		
735	38 Libræ γ	+ 3 3413	+ 0 0136	+ 0 002	+ 12 352	- 0 389	- 0 02	5134

707 — Proper Motions adopted from *Stone's Catalogue*
 728 — Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
736	5 Cor Bor α (<i>Alpha</i>)	20		15	28	55 81	62	49	38 6	5	0 49
737		9 8	1	15	29	12 53	119	40	28 0	1	0 42
738		9 0	1	15	30	9 95	129	33	27 5	1	0 40
739	28530 Lalande	9 5	1	15	31	50 66	47	25	19 7	1	0 46
740	XV 645 W B E	8 2	2	15	34	22 58	102	19	15 9	3	0 48
741	XV 675 W B E	9 2	3	15	35	56 43	102	41	26 6	3	0 48
742	24 Serpentis α	2 3		15	37	34 18	83	8	39 1	7	0 48
743		9 5	2	15	41	26 72	62	3	16 3	2	0 40
744		10 0	1	15	42	32 18	61	46	38 9	1	0 39
745	R Serpentis Var 2	7 4	1	15	44	25 44	74	27	6 8	1	0 50
746	3462 Radcliffe	8 0	1	15	46	20 61	47	1	30 6	1	0 46
747	28970 Lalande	7 8	1	15	47	57 96	70	49	3 7	1	0 56
748	28980 Lalande	6 1	2	15	48	54 37	104	25	44 7	3	0 48
749	16 Ursæ Minoris 3	4 0		15	48	59 55	11	47	19 8	2	0 49
750		9 0	2	15	49	24 72	103	59	1 0	3	0 49
751	29054 Lalande	8 6	3	15	50	30 87	104	3	3 0	3	0 42
752	8 Scorpi β	2 0		15	57	31 94	109	25	48 7	7	0 45
753		8 3	3	15	59	58 54	105	16	22 1	3	0 43
754	15281 O A S	9 3	3	16	0	53 47	105	43	43 2	3	0 41
755	14 Scorpi ν	4 3		16	4	5 63	109	6	15 7	2	0 35
756	116 R P L	6 9		16	4	43 76	4	18	46 2	1	0 01
757	15412 O A S	9 3	3	16	6	18 59	106	3	7 8	3	0 42
758	15418 O A S	8 7	3	16	6	30 91	106	11	31 1	3	0 44
759	1 Ophiuchi δ	3 0		16	7	13 22	93	20	30 5	5	0 50
760	15544 O A S	8 7	3	16	12	46 73	103	45	6 3	3	0 41
761	20 Scorpi σ	3 3		16	12	55 52	115	15	47 4	3	0 41
762	15552 O A S	9 2	1	16	13	13 89	107	22	1 0	1	0 50
763		8 9	1	16	15	46 22	128	7	41 2	1	0 46
764	21 Scorpi α (<i>Antares</i>)	1 3		16	21	4 32	116	7	36 9	10	0 47
765	30 Hercules γ Var 5	5 5	1	16	24	10 48	47	49	3 4	1	0 46
766	13 Ophiuchi 3	3 3		16	29	40 28	100	17	19 7	1	0 54
767	5784 Brisbane	9 5	1	16	30	54 60	150	39	26 0	1	0 40
768	40 Hercules ν	2 7		16	36	9 60	58	8	57 5	7	0 52
769		10 0	1	16	44	52 58	75	16	41 4	1	0 42
770	27 Ophiuchi κ	3 7		16	51	13 82	80	24	40 0	7	0 56

739-747—Comparison stars for Comet 2 1862

740-741-743-750-751-753-754-757-758-760—Comparison stars for Sappho in 1864

745—R Serpentis Var 2—Period 355 days—Range 6th to 11th magnitude

756—2423 Carrington

765—30 Hercules γ Var 5—Changes irregularly from 5th to 6.3 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
736	5 Coronæ Borealis α	+ 2 5294	+ 0 0023	+ 0 009	+ 12 283	- 0 297	+ 0 07	5143
737		+ 3 6749	+ 0 0224		+ 12 262	- 0 429		
738		+ 3 9487	+ 0 0314		+ 12 197	- 0 463		
739	28580 Lalande	+ 2 0914	+ 0 0025		+ 12 080	- 0 249		
740	XV 645 W B E	+ 3 3071	+ 0 0125		+ 11 903	- 0 393		
741	XV 675 W B E	+ 3 3156	+ 0 0126		+ 11 792	- 0 396		
742	24 Serpentis α	+ 2 9413	+ 0 0062	+ 0 009	+ 11 677	- 0 354	- 0 05	5196
743		+ 2 4886	+ 0 0027		+ 11 899	- 0 304		
744		+ 2 4795	+ 0 0027		+ 11 820	- 0 304		
745	R Serpentis Var 2	+ 2 7634	+ 0 0043		+ 11 183	- 0 340		
746	3462 Radcliffe	+ 2 0323	+ 0 0033		+ 11 044	- 0 252		
747	28970 Lalande	+ 2 6821	+ 0 0039		+ 10 925	- 0 333		
748	28980 Lalande	+ 3 3614	+ 0 0127		+ 10 856	- 0 417		
749	16 Ursæ Minoris 3	- 2 3157	+ 0 2043	+ 0 029	+ 10 850	+ 0 279	+ 0 08	5285
750		+ 3 3524	+ 0 0125		+ 10 819	- 0 417		
751	29054 Lalande	+ 3 3540	+ 0 0125		+ 10 738	- 0 418		
752	8 Scorpii β^1	+ 3 4778	+ 0 0142	- 0 002	+ 10 214	- 0 441	+ 0 02	5329
753		+ 3 3883	+ 0 0123		+ 10 029	- 0 432		
754	15281 O A S	+ 3 3990	+ 0 0124		+ 9 953	- 0 435		
755	14 Scorpii ν	+ 3 4772	+ 0 0136	- 0 002	+ 9 715	- 0 448	+ 0 03	5382
756	116 R P L	- 12 4940	+ 1 7618		+ 9 667	+ 1 593		
757	15412 O A S	+ 3 4104	+ 0 0122		+ 9 545	- 0 442		
758	15418 O A S	+ 3 4135	+ 0 0123		+ 9 529	- 0 442		
759	1 Ophiuchi δ	+ 3 1408	+ 0 0081	- 0 006	+ 9 476	- 0 408	+ 0 13	5414
760	15544 O A S	+ 3 4313	+ 0 0119		+ 9 044	- 0 451		
761	20 Scorpii σ	+ 3 6354	+ 0 0156	- 0 003	+ 9 033	- 0 478	- 0 01	5447
762	15552 O A S	+ 3 4457	+ 0 0121		+ 9 009	- 0 453		
763		+ 4 0148	+ 0 0233		+ 8 810	- 0 530		
764	21 Scorpii α (Antares)	+ 3 6676	+ 0 0150	- 0 001	+ 8 391	- 0 491	+ 0 03	5498
765	30 Hercules Var 5	+ 1 9649	+ 0 0042	+ 0 005	+ 8 144	- 0 265	- 0 07	5523
766	13 Ophiuchi 3	+ 3 2062	+ 0 0088	+ 0 001	+ 7 701	- 0 447	- 0 03	5548
767	5784 Brisbane	+ 5 2731	+ 0 0545		+ 7 601	- 0 715		5554
768	40 Hercules 3	+ 2 2963	+ 0 0033	- 0 034	+ 7 175	- 0 316	- 0 45	5604
769		+ 2 7395	+ 0 0039		+ 6 457	- 0 381		
770	27 Ophiuchi κ	+ 2 8562	+ 0 0044	- 0 023	+ 5 923	- 0 402	- 0 02	5708

749—766—Proper Motions adopted from *Greenwich Catalogue*770—Proper Motion adopted from *Stones Catalogue*,

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
771	16232 O A S	9 8	1	16	53	57 53	110	14	43 5	1	0 56
772	16233 O A S	8 0	1	16	53	58 62	110	23	35 0	1	0 53
16 75 - - 773		7 7	1	16	55	58 27	109	56	33 8	1	0 42
34 89 774	22 Ursæ Minoris ϵ	4 0		17	0	1 41	7	44	41 4	6	0 55
775	35 Ophiuchi η	2 3		17	2	34 8 ⁸	105	33	10 3	2	0 42
776		9 0	1	17	5	44 18	130	50	23 7	1	0 56
777	64 Hercules α Var 1	3 0		17	8	26 77	75	27	8 1	8	0 55
[5818] 778		8 2	1	17	9	1 79	124	4	16 2	1	0 49
21 45 779		9 8	1	17	11	57 45 ^{8 18}	130	27	39 3	1	0 56
780	8017 Taylor	6 7	1	17	13	21 23	114	45	54 6	3	0 49
781	42 Ophiuchi θ	3 3		17	13	39 53	114	51	36 4	5	0 56
782	44 Ophiuchi δ	5 0	1	17	18	3 97	114	2	48 4	1	0 62
783	3 Aræ	6 7	1	17	18	49 67	150	33	55 7	2	0 48
784		8 3	1	17	21	22 44	130	32	55 8	1	0 56
785		8 4	1	17	21	22 60	130	50	57 0	1	0 62
786		8 7	1	17	23	25 03	125	14	39 7	1	0 53
787	55 Ophiuchi α	2 0		17	28	37 24	77	20	18 4	5	0 55
788		8 9	1	17	29	22 89	130	56	24 1	1	0 56
789		9 3	1	17	34	34 16	126	15	0 4	1	0 56
790		9 8	1	17	39	16 94	127	17	24 4	1	0 56
791		8 5	1	17	39	43 84	127	14	36 4	1	0 54
792	86 Hercules μ	3 3		17	41	8 20	62	11	52 4	2	0 56
793	31 Draconis ψ^1 (1st)	6 5	1	17	44	22 18	17	47	6 9	1	0 46
794		8 9	1	17	45	2 69	128	47	39 5	1	0 60
795	7504 Lacaille	7 0	1	17	48	32 17	129	47	48 6	1	0 60
796		8 7	3	17	50	25 20	130	50	22 6	3	0 57
797	7518 Lacaille	7 0	1	17	52	43 11	149	12	14 6	1	0 62
798	33 Draconis γ (Etanm)	2 5		17	53	26 91	38	29	39 1	1	0 61
799	8355 Taylor	5 5	1	17	56	59 84	133	25	39 0	1	0 60
800		9 2	2	18	1	13 76	131	43	35 0	2	0 58
801		9 0	1	18	2	49 27	131	40	29 2	1	0 56
802	T Hercules Var 4	8 2	1	18	3	57 37	53 59	52 7		1	0 62
803	13 Sagittarii μ	4 5		18	5	37 75	111	5	27 7	4	0 61
804	15 Sagittarii	5 0	1	18	7	6 02	110	45	54 7	1	0 62
805	8461 Taylor	6 1	1	18	14	24 47	134	10	24 8	1	0 62

777 — α Hercules Var 1 — Changes irregularly between 3rd and 4th magnitudes
 786 — 789 — 791 — 795 — 799 — 800 — 801 — Comparison stars for Donati's Comet of 1858
 802 — T Hercules Var 4 — Period 165 days — Range 7 5 to 12th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
771	16232 O A S	+ 3 5449	+ 0 0093		+ 5 699	- 0 498		
772	16233 O A S	+ 3 5486	+ 0 0093		+ 5 698	- 0 498		
773		+ 3 5380	+ 0 0091		+ 5 590	- 0 498		
774	22 Ursæ Minoris ϵ	+ 6 4245	+ 0 3038	+ 0 009	+ 5 188	+ 0 903	- 0 01	5780
775	35 Ophiuchi η	+ 3 4325	+ 0 0074	+ 0 001	+ 4 972	- 0 487	- 0 12	5781
776		+ 4 1956	+ 0 0143		+ 4 704	- 0 597		
777	64 Herculis α Var 1	+ 2 7338	+ 0 0035	- 0 003	+ 4 473	- 0 391	- 0 04	5821
778		+ 3 9540	+ 0 0113		+ 4 424	- 0 565		
779		+ 4 1875	+ 0 0132		+ 4 173	- 0 599		
780	8017 Taylor	+ 3 6761	+ 0 0080		+ 4 053	- 0 527		5846
781	42 Ophiuchi θ	+ 3 6788	+ 0 0080	- 0 003	+ 4 028	- 0 528	- 0 02	5851
782	44 Ophiuchi δ	+ 3 6587	+ 0 0073	- 0 002	+ 3 649	- 0 527	+ 0 12	5876
783	δ Aræ	+ 5 4035	+ 0 0269	- 0 009	+ 3 584	- 0 778	+ 0 09	5877
784		+ 4 1997	+ 0 0109		+ 3 364	- 0 605		
785		+ 4 2118	+ 0 0110		+ 3 364	- 0 607		
786		+ 4 0077	+ 0 0079		+ 2 755	- 0 580		
787	55 Ophiuchi α	+ 2 7745	+ 0 0030	+ 0 004	+ 2 737	- 0 402	+ 0 20	5941
788		+ 4 2215	+ 0 0091		+ 2 671	- 0 611		
789		+ 4 0465	+ 0 0069		+ 2 221	- 0 587		
790		+ 4 0860	+ 0 0061		+ 1 811	- 0 594		
791		+ 4 0846	+ 0 0060		+ 1 771	- 0 594		
792	86 Herculis μ	+ 2 3694	+ 0 0025	- 0 026	+ 1 649	- 0 346	+ 0 74	6021
793	31 Draconis ψ^1 (1st)	- 1 0861	+ 0 0155	- 0 002	+ 1 367	+ 0 157	+ 0 26	6047
794		+ 4 1446	+ 0 0049		+ 1 308	- 0 604		
795	7504 Lacaille	+ 4 1578	+ 0 0042		+ 1 002	- 0 606		
796		+ 4 2267	+ 0 0042		+ 0 838	- 0 616		
797	7518 Lacaille	+ 5 3142	+ 0 0052		+ 0 637	- 0 775		
798	33 Draconis γ	+ 1 3915	+ 0 0030	0 000	+ 0 573	- 0 203	+ 0 04	6091
799	8355 Taylor	+ 4 3375	+ 0 0024	- 0 006	+ 0 263	- 0 632	+ 0 12	6112
800		+ 4 2644	+ 0 0011		- 0 107	- 0 622		
801		+ 4 2650	+ 0 0007		- 0 247	- 0 622		
802	T Herculis Var 4	+ 2 2688	+ 0 0021		- 0 346	- 0 331		
803	13 Sagittarii μ	+ 3 5875	+ 0 0009	- 0 004	- 0 492	- 0 523	+ 0 01	6168
804	15 Sagittarii	+ 3 5788	+ 0 0008	- 0 006	- 0 621	- 0 522	+ 0 02	6179
805	8461 Taylor	+ 4 3684	- 0 0028		- 1 260	- 0 635		6228

783—799 —Proper Motions adopted from *Stone's Catalogue*
804 —Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
806	23 Ursæ Minoris δ	4.5		18	16	13.39	3	23	46.6	5	0.39
807	21 Sagittarii	5.0	1	18	17	14.94	110	36	40.7	1	0.62
808	δ^2 Telescopii	6.5	2	18	21	58.19	135	50	46.0	2	0.58
809		9.0	1	18	22	51.47	135	15	54.9	1	0.56
810	θ Coronæ Australis	6.0	1	18	23	47.14	132	24	22.3	1	0.63
811	3 Lyræ α (<i>Vega</i>)	1.0		18	32	19.97	51	20	29.2	4	0.61
812	R Souti Var 1	6.0	1	18	40	13.20	95	50	53.3	1	0.64
813	7872 Lacaille	6.0	1	18	42	20.14	136	45	1.7	1	0.63
814	7878 Lacaille	7.0	1	18	42	53.19	136	44	39.6	1	0.63
815	10 Lyræ β Var 1	4.0		18	45	3.41	56	47	36.5	3	0.66
816		9.7	1	18	46	54.04	137	44	56.1	1	0.65
817	37 Sagittarii γ^3	4.0		18	49	36.78	111	16	55.7	1	0.54
818	13 Lyræ Var 2	4.3		18	51	11.38	46	13	51.3	1	0.61
819		7.9	2	18	54	10.43	122	56	13.2	2	0.60
820		10.0	2	18	57	17.42	111	21	8.9	2	0.63
821	17 Aquilæ ζ	3.3		18	59	9.45	76	20	11.7	7	0.66
822		9.5		19	0	51.71	82	1	34.1	1	0.59
823	41 Sagittarii π	4.5		19	1	40.55	111	14	12.3	1	0.54
824		9.0	1	19	3	6.08	139	22	42.7	1	0.65
825		8.0	2	19	3	13.40	122	51	6.1	2	0.56
826	T Sagittarii Var 3	8.0	4	19	8	23.18	107	12	22.8	4	0.61
827	R Sagittarii Var 1	10.0	1	19	8	42.57	109	32	38.4	1	0.65
828		9.5	1	19	9	6.37	109	32	47.9	1	0.64
829	43 Sagittarii d	5.0	1	19	9	40.56	109	11	30.8	1	0.62
830		8.1	1	19	10	0.19	107	9	40.9	1	0.70
831	25 Aquilæ ω	5.7		19	11	25.88	78	38	51.0	4	0.64
832	44 Sagittarii ρ^1	4.5		19	13	46.80	108	6	1.0	1	0.62
833		8.2	3	19	16	34.39	129	52	46.6	3	0.69
834	30 Aquilæ δ	3.5		19	18	33.37	87	9	14.5	7	0.65
835	52 Sagittarii h	5.0		19	28	25.64	115	10	49.9	5	0.65
836	8173 Lacaille	8.8	1	19	31	36.73	143	15	31.5	1	0.64
837	R Cygni Var 3	9.7	2	19	33	12.30	40	4	50.7	2	0.64
838		9.0	1	19	34	23.47	127	17	3.4	1	0.65
839	50 Aquilæ γ	3.0		19	39	47.49	79	42	57.4	3	0.65
840	S Vulpeculæ Var 3	9.6	1	19	42	49.26	63	3	1.8	2	0.64

810—813—814—Comparison stars for Donati's Comet of 1858

812—R Souti Var 1—Period 71 days—Range, 5th to 8th magnitude

815— β Lyræ Var 1—Period 12.91 days—Range 3.5 to 4.5 magnitude

818—13 Lyræ Var 2—Period 46 days—Range 4.2 to 4.6 magnitude

819—825—Comparison stars for Diana in 1864

820—Observed by mistake for Eunomia

826—T Sagittarii Var 3—Period 381 days—Range 7.5 magnitude to invisibility

827—R Sagittarii Var 1—Period 270 days—Range 7th magnitude to invisibility

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
806	23 Ursæ Minoris δ	- 19 3984	- 0 4743	+ 0 048	- 1 418	+ 2 823	- 0 03	6281
807	21 Sagittarii	+ 3 5735	- 0 0004	- 0 003	- 1 508	- 0 519	+ 0 02	6247
808	δ^a Telescopii	+ 4 4429	- 0 0055	- 0 003	- 1 920	- 0 643	+ 0 05	6282
809		+ 4 4148	- 0 0059		- 1 997	- 0 640		
810	θ Coronæ Australis	+ 4 2866	- 0 0049	0 000	- 2 078	- 0 620	+ 0 03	6296
811	3 Lyræ α (<i>Vega</i>)	+ 2 0130	+ 0 0016	+ 0 017	- 2 820	- 0 290	- 0 28	6355
812	R Scuti Var 1	+ 3 2069	- 0 0011		- 3 501	- 0 453		
813	7872 Lacaille	+ 4 4693	- 0 0122		- 3 683	- 0 639		
814	7878 Lacaille	+ 4 4684	- 0 0124		- 3 731	- 0 638		
815	10 Lyræ β Var 1	+ 2 2137	+ 0 0015	- 0 002	- 3 917	- 0 315	+ 0 03	6429
816		+ 4 5132	- 0 0142		- 4 076	- 0 643		
817	37 Sagittarii ξ^a	+ 3 5806	- 0 0043	- 0 001	- 4 308	- 0 508	+ 0 03	6461
818	13 Lyræ Var 2	+ 1 8232	+ 0 0008	- 0 001	- 4 442	- 0 257	0 00	6475
819		+ 3 9142	- 0 0085		- 4 696	- 0 553		
820		+ 3 5786	- 0 0053		- 4 961	- 0 503		
821	17 Aquilæ ζ	+ 2 7573	+ 0 0003	- 0 006	- 5 119	- 0 387	+ 0 07	6528
822		+ 2 8914	- 0 0004		- 5 263	- 0 405		
823	41 Sagittarii π	+ 3 5730	- 0 0057	- 0 004	- 5 332	- 0 500	+ 0 03	6543
824		+ 4 5721	- 0 0208		- 5 453	- 0 640		
825		+ 3 9028	- 0 0100		- 5 463	- 0 546		
826	T Sagittarii Var 3	+ 3 4678	- 0 0054		- 5 896	- 0 430		
827	R Sagittarii Var 1	+ 3 5256	- 0 0060		- 5 923	- 0 438		
828		+ 3 5254	- 0 0061		- 5 956	- 0 438		
829	43 Sagittarii δ	+ 3 5161	- 0 0061	- 0 004	- 6 004	- 0 436	- 0 01	6584
830		+ 3 4659	- 0 0055		- 6 030	- 0 479		
831	25 Aquilæ ω	+ 2 8165	- 0 0003	- 0 003	- 6 150	- 0 383	- 0 02	6595
832	44 Sagittarii ρ^1	+ 3 4867	- 0 0061	- 0 003	- 6 345	- 0 430	- 0 03	6619
833		+ 4 1274	- 0 0164		- 6 576	- 0 565		
834	30 Aquilæ δ	+ 3 0094	- 0 0018	+ 0 014	- 6 743	- 0 410	- 0 10	6646
835	52 Sagittarii h^a	+ 3 6543	- 0 0102	+ 0 002	- 7 543	- 0 490	- 0 02	6706
836	8173 Lacaille	+ 3 7219	- 0 0358		- 7 805	- 0 631		
837	R Cygni Var 3	+ 1 6129	- 0 0015		- 7 933	- 0 213		
838		+ 4 0048	- 0 0179		- 8 029	- 0 533		
839	50 Aquilæ γ	+ 2 8520	- 0 0011	+ 0 001	- 8 459	- 0 373	0 00	6772
840	S Vulpeculæ Var 3	+ 2 4596	+ 0 0011		- 8 697	- 0 319		

808—810 —Proper Motions adopted from *Stones's Catalogue*818 —Proper Motions adopted from *Greenwich Catalogue*,

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
841	53 Aquilæ α (Altan)	1 8		19	44	8 79	81	29	18 2	2	0 65
842	χ Cygni Var 2	6 0	2	19	45	20 36	57	25	43 0	2	0 60
843	55 Aquilæ η Var 1	4 0		19	45	32 45	89	20	27 9	1	0 59
844	60 Aquilæ β	4 5		19	48	27 84	83	55	50 9	4	0 66
845		8 5	1	19	49	33 81	145	56	51 6	1	0 70
146		9 0	2	19	53	0 36	147	10	53 2	2	0 63
847		9 1	1	19	55	35 36	151	51	39 1	1	0 75
848	9208 Taylor	5 3	2	19	55	41 75	122	26	6 0	2	0 61
849	λ Ursæ Minoris	6 3		20	0	7 03	1	5	54 6	4	0 42
850	20046 O A N	9 2	1	20	2	39 55	32	23	32 3	1	0 54
851	R Capricorni Var 1	9 1	1	20	3	40 42	104	40	4 6	1	0 65
852	S Aquilæ Var 4	9 1	2	20	5	21 88	74	46	56 4	2	0 67
853		9 0	1	20	7	41 31	81	22	28 8	1	0 69
854	20356 O A S	8 2	1	20	8	22 17	110	26	8 1	1	0 75
855		7 0	1	20	10	28 82	149	9	1 6	1	0 70
856	6 Capricorni α^a	3 5		20	10	30 27	102	57	50 1	7	0 65
857	89045 Lalande	6 4	2	20	12	4 98	50	3	16 4	2	0 68
858	α Pavonis	2 0		20	14	51 99	147	10	2 1	3	0 70
859	8441 Lacaille	8 3	2	20	18	13 10	121	6	58 9	2	0 66
860	11 Capricorni ρ	5 0		20	21	5 91	108	15	38 3	7	0 66
861	39525 Lalande	7 0	1	20	24	56 21	86	2	29 2	2	0 72
862		8 3	3	20	27	13 08	121	5	54 0	3	0 69
863		8 9	1	20	27	50 62	143	16	24 8	1	0 63
864	24 Cephei Hev Var	8 9	1	20	28	6 07	1	17	6 8	2	0 19
865	143 R P L	6 7		20	29	42 23	5	18	29 0	2	0 45
866		8 5	1	20	29	45 35	143	52	1 4	1	0 72
867		8 0	2	20	30	52 41	149	55	23 2	2	0 76
868	14 Capricorni τ^a	5 7		20	31	39 85	105	25	45 7	1	0 62
869	S Capricorni Var 2	9 0	2	20	33	57 28	109	32	21 9	2	0 64
870		8 7	1	20	36	32 04	148	23	33 4	1	0 76
871	50 Cygni α (Deneb)	1 7		20	36	47 68	45	12	16 4	5	0 69
872		9 0	1	20	38	8 49	143	3	17 3	1	0 65
873	2 Aquarii ϵ	4 5		20	40	18 60	99	59	29 5	2	0 62
874		10 5	1	20	41	8 55	105	18	21 6	1	0 64
875	T Aquarii Var 4	8 7	4	20	42	45 58	95	38	58 1	4	0 68

842 — χ Cygni Var 2 — Period 406 days — Range 4th magnitude to invisibility
 843 — η Aquilæ Var 1 — Period 7 176 days — Range 3 5 to 4 7 magnitude
 850 — Comparison star n of S Cygni Var 4
 851 — R Capricorni Var 1 — Period 347 days — Range 9th magnitude to invisibility
 852 — S Aquilæ Var 4 — Period 147 days — Range 9th to 11 5 magnitude
 854 — Comparison star for Parthenope in 1862
 864 — R Ursæ Minoris Var 1 — Variable from 5th to 11th magnitude in many years
 865 — 8123 Carrington
 866 — S Capricorni Var 2 — Supposed to change from 9th to 11th magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
841	53 Aquilæ α (<i>Altair</i>)	+ 2 8922	- 0 0014	+ 0 036	- 8 804	- 0 374	- 0 38	6802
842	χ Cygni Var 2	+ 2 3067	+ 0 0013		- 8 896	- 0 297		
843	55 Aquilæ η Var 1	+ 3 0583	- 0 0031	- 0 001	- 8 912	- 0 396	+ 0 04	6811
844	60 Aquilæ β	+ 2 9455	- 0 0020	+ 0 002	- 9 154	- 0 378	+ 0 47	6833
845		+ 4 8285	- 0 0479		- 9 227	- 0 621		
846		+ 4 8983	- 0 0523		- 9 492	- 0 626		
847		+ 5 2607	- 0 0700		- 9 691	- 0 668		
848	9208 Taylor	+ 3 8157	- 0 0175		- 9 701	- 0 438		6877
849	λ Ursæ Minoris	- 57 2949	- 29 8376	- 0 035	- 10 037	+ 7 238	- 0 01	6999
850	20046 O A N	+ 1 2594	- 0 0074		- 10 228	- 0 154		
851	R Capricorni Var 1	+ 3 3723	- 0 0087		- 10 305	- 0 418		
852	S Aquilæ Var 4	+ 2 7615	- 0 0004		- 10 431	- 0 340		
853		+ 2 8999	- 0 0017		- 10 604	- 0 354		
854	20356 O A S	+ 3 4941	- 0 0116		- 10 653	- 0 427		
855		+ 4 9574	- 0 0649		- 10 811	- 0 604		
856	6 Capricorni α	+ 3 3312	- 0 0084	+ 0 001	- 10 814	- 0 403	0 00	6974
857	39045 Lalande	+ 2 1327	+ 0 0017		- 10 929	- 0 256		6986
858	α Pavonis	+ 4 7954	- 0 0594	0 000	- 11 133	- 0 574	+ 0 10	7004
859	8441 Lacaille	+ 3 7367	- 0 0192		- 11 375	- 0 444		
860	11 Capricorni ρ	+ 3 4322	- 0 0115	- 0 006	- 11 582	- 0 403	+ 0 01	7042
861	39525 Lalande	+ 2 9974	- 0 0031		- 11 855	- 0 347		
862		+ 3 7178	- 0 0200		- 12 015	- 0 429		
863		+ 4 5039	- 0 0515		- 12 059	- 0 520		
864	24 Cephei Hev Var	- 44 4910	- 23 9972		- 12 076	+ 5 186		7184
865	143 R P L	- 8 3554	- 1 2622		- 12 188	+ 0 973		
866		+ 4 5261	- 0 0535		- 12 192	- 0 519		
867		+ 4 8982	- 0 0742		- 12 270	- 0 560		
868	14 Capricorni τ^3	+ 3 3631	- 0 0105	- 0 002	- 12 325	- 0 382	+ 0 03	7127
869	S Capricorni Var 2	+ 3 4434	- 0 0128		- 12 481	- 0 385		
870		+ 4 7574	- 0 0694		- 12 658	- 0 533		
871	50 Cygni α (<i>Deneb</i>)	+ 2 0433	+ 0 0021	- 0 002	- 12 675	- 0 226	0 00	7171
872		+ 4 4431	- 0 0530		- 12 766	- 0 495		
873	2 Aquarii ϵ	+ 3 2523	- 0 0084	- 0 001	- 12 911	- 0 357	+ 0 01	7196
874		+ 3 3512	- 0 0109		- 12 967	- 0 367		
875	T Aquarii Var 4	+ 3 1724	- 0 0086		- 13 076	- 0 345		

858 — Proper Motions adopted from "Stone's Catalogue"

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
876	8571 Lacaille	8.0	2	20	42	53.12	150	12	58.0	2	0.73
877	9633 Taylor	7.4	2	20	44	34.19	101	56	47.2	2	0.69
878	6 Aquarii μ	5.0		20	45	19.11	99	29	29.2	2	0.70
879		8.8	1	20	48	36.01	149	1	17.4	1	0.65
880	32 Vulpeculæ	5.0		20	48	45.82	62	27	29.5	9	0.70
881		9.0	1	20	50	40.81	148	45	51.9	1	0.70
882	8635 Lacaille	7.4	3	20	52	18.83	126	35	2.8	3	0.71
883	23 Capricorni θ	5.0		20	53	18.93	107	46	16.1	1	0.77
884	R Vulpeculæ Var 2	8.5	2	20	53	20.25	66	43	3.3	2	0.67
885		9.2	1	20	53	35.34	148	52	36.7	1	0.75
886	9772 Taylor	8.1	2	21	0	27.27	145	7	16.6	2	0.72
887	61 Cygni (1st)	5.3		21	0	48.17	51	55	4.3	3	0.67
888	13 Aquarii ν	4.7		21	2	10.85	101	55	14.0	2	0.70
889		9.6	2	21	2	54.46	145	6	44.7	2	0.73
890	8712 Lacaille	8.5	1	21	4	11.07	146	48	32.8	1	0.74
891	64 Cygni 3	3.5		21	7	8.89	60	19	47.3	9	0.69
892	T Capricorni Var 3	9.1	3	21	14	25.65	105	40	11.5	3	0.67
893	5 Cephei α (Alderamin)	2.7		21	15	19.93	27	59	24.9	3	0.69
894	9931 Taylor	6.7	3	21	18	41.84	142	53	23.1	3	0.73
895		8.2	1	21	20	5.57	150	47	50.8	1	0.77
896	22 Aquarii β	3.0		21	24	23.81	96	10	4.8	14	0.69
897		7.9	1	21	25	49.17	140	23	25.6	1	0.70
898	3 Cephei β	3.3		21	26	53.87	20	2	9.1	3	0.69
899		9.5	1	21	27	4.39	132	38	18.9	1	0.74
900		9.3	1	21	28	50.12	134	4	22.2	1	0.74
901		9.0	2	21	29	29.23	134	2	30.3	2	0.76
902		9.0	1	21	29	53.40	98	25	25.9	1	0.77
903	23 Aquarii ξ	5.3		21	30	30.57	98	27	44.8	3	0.68
904	10032 Taylor	6.4	1	21	30	41.50	142	58	15.0	1	0.68
905	10065 Taylor	6.4	1	21	34	27.93	145	7	8.3	1	0.70
906		9.1	2	21	34	41.54	134	0	27.2	2	0.74
907	8 Pegasi ϵ	2.5		21	37	30.34	80	44	50.1	10	0.74
908	10126 Taylor	7.0	1	21	40	59.24	137	14	24.3	1	0.74
909	XXI 975 W B E	9.0	3	21	41	9.82	97	19	45.6	3	0.65
910		9.1	2	21	42	52.93	132	31	26.0	2	0.75

884 — R Vulpeculæ Var 2 — Period 138 days — Range 8th to 13th magnitude
 892 — T Capricorni Var 3 — Period 269 days — Range 9th magnitude to invisibility
 909 — Comparison star for Ariadne in 1864

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		s	s	s				
876	8571 Lacaille	+ 4 8426	- 0 0787		- 13 084	- 0 529		
877	9633 Taylor	+ 3 2848	- 0 0093		- 13 195	- 0 355		7232
878	6 Aquarii μ	+ 3 2399	- 0 0083	0 000	- 13 244	- 0 349	+ 0 04	7239
879		+ 4 7231	- 0 0745		- 13 458	- 0 505		
880	32 Vulpeculæ	+ 2 5554	+ 0 0026	- 0 002	- 13 469	- 0 270	0 00	7256
881		+ 4 6931	- 0 0739		- 13 593	- 0 497		
882	8635 Lacaille	+ 3 7969	- 0 0272		- 13 697	- 0 398		
883	23 Capricorni θ	+ 3 3771	- 0 0123	+ 0 004	- 14 077	- 0 345	+ 0 05	7322
884	R Vulpeculæ Var 2	+ 2 6623	+ 0 0022		- 14 078	- 0 271		
885		+ 4 6476	- 0 0757		- 14 093	- 0 476		
886	9772 Taylor	+ 4 4256	- 0 0624		- 14 209	- 0 449		
887	61 Cygni (1st)	+ 2 3337	+ 0 0044	+ 0 339	- 14 234	- 0 233	- 3 22	7336
888	13 Aquarii ν	+ 3 2698	- 0 0098	+ 0 001	- 14 316	- 0 328	+ 0 01	7344
889		+ 4 4093	- 0 0626		- 14 360	- 0 443		
890	8712 Lacaille	+ 4 4907	- 0 0685		- 14 438	- 0 448		
891	64 Cygni 5	+ 2 5505	+ 0 0038	- 0 003	- 14 617	- 0 248	+ 0 07	7368
892	T Capricorni Var 3	+ 3 3201	- 0 0120		- 15 045	- 0 314		
893	5 Cephei α (Alderamin)	+ 1 4102	- 0 0071	+ 0 021	- 15 098	- 0 130	- 0 01	7416
894	9931 Taylor	+ 4 2157	- 0 0575		- 15 290	- 0 391		7443
895		+ 4 6091	- 0 0871		- 15 368	- 0 425		
896	22 Aquarii β	+ 3 1627	- 0 0071	- 0 001	- 15 608	- 0 282	0 00	7478
897		+ 4 0788	- 0 0516		- 15 685	- 0 363		
898	8 Cephei β	+ 0 8010	- 0 0345	0 000	- 15 744	- 0 065	+ 0 04	7493
899		+ 3 8340	- 0 0371		- 15 754	- 0 339		
900		+ 3 8653	- 0 0394		- 15 849	- 0 338		
901		+ 3 8615	- 0 0394		- 15 884	- 0 337		
902		+ 3 1927	- 0 0032		- 15 905	- 0 276		
903	23 Aquarii ξ	+ 3 1929	- 0 0083	+ 0 004	- 15 937	- 0 276	+ 0 04	7514
904	10032 Taylor	+ 4 1468	- 0 0584		- 15 948	- 0 359		7513
905	10065 Taylor	+ 4 2097	- 0 0649		- 16 146	- 0 357		7540
906		+ 3 8372	- 0 0394		- 16 168	- 0 324		
907	8 Pegasi ϵ	+ 2 9452	- 0 0005	+ 0 003	- 16 302	- 0 242	0 00	7561
908	10126 Taylor	+ 3 8963	- 0 0454		- 16 478	- 0 317		7591
909	XXI 975 W B E	+ 3 1700	- 0 0076		- 16 486	- 0 256		
910		+ 3 7627	- 0 0372		- 16 571	- 0 302		

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				h	m	s					
911	16 Pegasi	5.5		21	46	52.49	64	42	50.7	9	0.72
912	8958 Lacaille	7.6	2	21	47	12.80	135	53	19.5	2	0.75
913		9.3	2	21	47	34.84	133	12	30.1	2	0.75
914		9.7	1	21	52	46.60	136	38	12.8	1	0.74
915	κ Indi	6.5	1	21	56	15.98	150	17	30.7	1	0.85
916	31 Aquarii α	4.7		21	56	16.50	92	48	38.9	1	0.68
917	32 Aquarii	5.6	3	21	57	47.58	91	38	47.1	3	0.74
918		7.9	2	21	58	11.91	136	2	33.8	2	0.75
919	34 Aquarii α	3.0		21	58	47.79	90	58	46.3	10	0.73
920	α Grus	2.0		21	59	38.79	137	37	5.5	1	0.72
921		9.5	1	22	3	19.55	101	8	51.2	1	0.74
922	XXII 98 W B E	8.0	3	22	6	21.85	90	25	47.5	3	0.68
923		8.0	1	22	9	5.50	98	22	7.1	2	0.78
924		9.0	1	22	9	7.81	146	27	28.2	1	0.77
925	43 Aquarii θ	4.7		22	9	39.29	98	27	33.9	10	0.77
926	48 Aquarii γ	3.7		22	14	37.87	92	4	18.8	3	0.82
927		8.9	3	22	15	20.86	82	47	26.1	3	0.70
928		9.4	2	22	16	51.21	135	53	25.2	2	0.75
929	55 Aquarii 3	6.1	3	22	21	49.60	90	42	52.0	3	0.72
930	57 Aquarii σ	5.0		22	23	26.76	101	22	23.2	1	0.70
931	150 R P L	5.5		22	23	38.63	4	34	42.1	7	0.29
932	27 Cephei 3 Var 1	4.0		22	24	7.58	32	16	51.0	1	0.76
933		9.2	1	22	24	17.62	135	42	9.4	1	0.74
934		9.7	1	22	24	39.74	146	50	35.2	1	0.77
935		8.2	1	22	25	51.83	141	30	13.4	1	0.75
936	62 Aquarii η	4.0		22	28	21.97	90	49	4.0	0	0.77
937	9188 Lacaille	7.0	2	22	29	53.53	130	33	43.2	2	0.83
938	10477 Taylor	6.2	2	22	32	7.25	148	7	50.5	2	0.77
939	42 Pegasi 3	3.5		22	34	40.74	79	52	39.9	5	0.75
940		8.8	2	22	36	30.50	130	26	56.8	2	0.81
941	9226 Lacaille	6.7	3	22	37	39.08	145	46	40.0	3	0.78
942	XXII 844 W B E	9.0	2	22	40	34.14	87	48	41.1	2	0.76
943		8.7	2	22	40	51.31	142	38	2.6	2	0.84
944		8.0	2	22	44	41.47	130	1	17.2	2	0.81
945		10.2	1	22	44	43.81	145	33	2.5	1	0.77

917—922—Comparison stars for Encke's Comet in 1862

931—3820 Groombridge

932,—3 Cephei Var 2—Period 5366 days—Range, 3.7 to 4.8 magnitude

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
911	16 Pegasi	+ 2 72.4	+ 0 0052	+ 0 001	- 16 766	- 0 210	+ 0 01	7627
912	89.8 Lacaille	+ 3 8272	- 0 0428		- 16 782	- 0 299		
913		+ 3 3750	- 0 0383		- 16 800	- 0 292		
914		+ 3 8181	- 0 0411		- 17 043	- 0 286		
915	κ Indi	- 4 2766	- 0 0845		- 17 203	- 0 314		7669
916	31 Aquarii	+ 3 1058	- 0 0051	+ 0 001	- 17 203	- 0 226	+ 0 01	7672
917	32 Aquarii	+ 3 0906	- 0 0045	+ 0 003	- 17 271	- 0 222	+ 0 03	7685
918		+ 3 7748	- 0 0130		- 17 290	- 0 272		
919	34 Aquarii α	+ 3 0836	- 0 0041	- 0 003	- 17 316	- 0 219	+ 0 02	7688
920	α Gruis	+ 3 8065	- 0 0457	+ 0 011	- 17 353	- 0 270	+ 0 15	7692
921		+ 3 0005	- 0 0093		- 17 512	- 0 219		
922	XXII 98 W B E	+ 3 0768	- 0 0037		- 17 640	- 0 205		
923		+ 3 1636	- 0 0077		- 17 752	- 0 207		
924		+ 4 0100	- 0 0681		- 17 754	- 0 264		
925	43 Aquarii θ	+ 3 1640	- 0 0075	+ 0 006	- 17 775	- 0 205	+ 0 03	7773
926	48 Aquarii γ	+ 3 0935	- 0 0013	+ 0 007	- 17 972	- 0 192	- 0 02	7795
927		+ 2 9970	0 0000		- 18 000	- 0 185		
928		+ 3 0738	- 0 0422		- 18 008	- 0 225		
929	55 Aquarii δ	+ 3 0790	- 0 0033	+ 0 009	- 18 243	- 0 178	- 0 03	7832
930	57 Aquarii σ	+ 3 1821	- 0 0088	- 0 004	- 18 301	- 0 182	- 0 05	7840
931	150 R I L	- 3 71.7	- 1 13.1	+ 0 048	- 18 308	+ 0 231	- 0 05	7851
932	27 Cephei δ V n 1	+ 2 7123	+ 0 0165	+ 0 002	- 18 326	- 0 123	+ 0 02	7848
933		+ 3 6278	- 0 0412		- 18 332	- 0 206		
934		+ 3 8990	- 0 0676		- 18 345	- 0 221		
935		+ 3 7433	- 0 05.7		- 18 387	- 0 210		
936	62 Aquarii η	+ 3 0794	- 0 0031	+ 0 003	- 18 474	- 0 166	+ 0 06	7868
937	9188 Lacaille	+ 3 5100	- 0 0833		- 18 525	- 0 168		
938	10177 Taylor	+ 3 8766	- 0 0708		- 18 599	- 0 203		7889
939	42 Pegasi δ	+ 2 9851	+ 0 0023	+ 0 001	- 18 682	- 0 149	0 00	7905
940		+ 3 1782	- 0 0327		- 18 739	- 0 173		
941	9226 Lacaille	+ 3 7632	- 0 0622		- 18 774	- 0 185		
942	XXII 844 W B E	+ 3 0547	- 0 0012		- 18 864	- 0 143		
943		+ 3 6646	- 0 0534		- 18 872	- 0 162		
944		+ 3 1344	- 0 0317		- 18 982	- 0 154		
945		+ 3 7007	- 0 0604		- 18 983	- 0 166		

916 — Proper Motions from Mr Stone's list *Memoirs R A S* Vol 33917 — Proper Motions adopted from *Greenwich Catalogue*920 — Proper Motions adopted from *Stone's Catalogue*

Mean Positions of Stars for 1864 January 1st,

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Tracto of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
946		8.2	1	22	44	50.43	118	34	33.0	2	0.73
947		9.0	1	22	48 ⁹	3.97	102	30	12.3	1	0.95
948		9.0	2	22	49	13.10	130	27	53.3	2	0.94
949	S Aquarii Var 2			22	49	49.09	111	4	10	1	0.72
950	2 Piscis Aus α (Fomalhaut)	1.3		20	50	1.70	120	20	32.8	7	0.62
951		7.3	2	22	50	19.40	111	0	5.7	2	0.73
952		8.9	1	22	51	20.12	101	33	15.5	2	0.51
953	9353 Lacaille	5.0	1	22	56	36.00	144	41	35.0	1	0.76
954		8.0	1	22	57	11.27	119	37	59.8	1	0.82
955	53 Pegasi β Var 1	2.3		22	57	11.01	62	39	16.9	1	0.76
956	51 Pegasi α (Matalab)	2.0		22	57	59.18	70	31	31.6	4	0.77
957		9.1	2	22	59	20.02	100	22	5.6	2	0.63
958	9372 Lacaille	8.0	2	23	0	22.71	150	28	12.7	2	0.50
959	9377 Lacaille	6.6	2	23	2	12.35	151	18	1.3	2	0.74
960		9.5	2	23	4	15.63	130	40	15.1	2	0.77
961	9394 Lacaille	8.1	3	23	5	9.76	145	50	37.8	3	0.82
962	6 Piscium γ	4.3		23	10	6.89	87	27	37.5	4	0.70
963		9.8	1	23	11	5.52	151	15	41.8	1	0.81
964		9.3	1	23	11	6.18	127	25	34.9	1	0.92
965		8.6	1	23	11	18.58	136	54	21.5	1	0.86
966		8.0	1	23	12	7.56	137	3	51.3	1	0.72
967		8.3	2	23	12	13.07	127	24	50.8	2	0.80
968	96 Aquarii	5.5	1	23	12	20.62	90	52	2.5	1	0.69
969		8.0	4	23	10	17.25	130	46	10.1	4	0.82
970		9.8	1	23	15	41.65	130	39	46.9	1	0.81
971		10.0		23	19	42.21	151	38	3.9	1	0.82
972	8 Piscium κ	5.5		23	19	51.63	89	29	20.0	8	0.79
973		6.7	2	23	23	37.19	148	57	35.6	2	0.76
974		9.9	2	23	25	29.95	129	51	59.0	2	0.61
975	10801 Lalande	6.7	1	23	27	29.64	147	31	36.0	1	0.76
976		5.4	2	23	27	40.78	118	14	46.3	2	0.76
977	10541 L	5.7		23	27	49.90	3	26	34.6	0	0.19
978		8.1	2	23	29	49.44	118	55	17.9	2	0.83
979		8.3	1	23	30	24.69	148	56	42.9	1	0.62
980	17 Piscium δ	4.0		23	32	57.34	85	6	38.9	7	0.78

949—S Aquarii Var 2 Period 279 days—Range 5th magnitude to invisibility
 955— β Pegasi Var 1—(Schlat)—Period about 6 weeks—Range 2.0 to 2.5 magnitude
 977—4101 Groombridge

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
916		+ 3 7769	- 0 0697		- 18 987	- 0 169		
947		+ 3 8680	- 0 0851		- 19 070	- 0 166		
948		+ 3 4801	- 0 0388		- 19 106	- 0 147		
949	S Aquarii Var 2	+ 3 2271	- 0 0140		- 19 122	- 0 134		
950	2 Piscis Australis α	+ 3 3069	- 0 0210	+ 0 022	- 19 131	- 0 135	+ 0 18	7992
951		+ 3 2207	- 0 0140		- 19 136	- 0 133		
952		+ 3 7995	- 0 0796		- 19 164	- 0 155		
953	9853 Lacaille	+ 3 5878	- 0 0550		- 19 293	- 0 135		8029
954		+ 3 6897	- 0 0705		- 19 307	- 0 138		
955	53 Pegasi β Var 1	+ 2 8850	+ 0 0117	+ 0 014	- 19 307	- 0 106	- 0 15	8032
956	51 Pegasi α (Ma1ab)	+ 2 9798	+ 0 0056	+ 0 003	- 19 325	- 0 107	+ 0 02	8034
957		+ 3 6871	- 0 0728		- 19 356	- 0 133		
958	9372 Lacaille	+ 3 6792	- 0 0727		- 19 380	- 0 130		
959	9377 Lacaille	+ 3 6814	- 0 0703		- 19 420	- 0 126		8061
960		+ 3 3499	- 0 0300		- 19 466	- 0 109		
961	9394 Lacaille	+ 3 3391	- 0 0571		- 19 483	- 0 114		
962	6 Piscium γ	+ 3 0501	+ 0 0005	+ 0 047	- 19 582	- 0 087	+ 0 01	8105
963		+ 3 5385	- 0 0721		- 19 600	- 0 108		
964		+ 3 2887	- 0 0264		- 19 600	- 0 093		
965		+ 3 3734	- 0 0382		- 19 604	- 0 098		
966		+ 3 3701	- 0 0384		- 19 619	- 0 094		
967		+ 3 2639	- 0 0263		- 19 621	- 0 087		
968	96 Aquarii	+ 3 1004	- 0 0038	+ 0 011	- 19 623	- 0 085	+ 0 01	8119
969		+ 3 2907	- 0 0296		- 19 674	- 0 085		
970		+ 3 2928	- 0 0295		- 19 681	- 0 084		
971		+ 3 5002	- 0 0703		- 19 745	- 0 081		
972	8 Piscium κ	+ 3 0699	0 0000	+ 0 005	- 19 750	- 0 069	+ 0 12	8169
973		+ 3 4232	- 0 0605		- 19 803	- 0 070		
974		+ 3 2396	- 0 0275		- 19 828	- 0 062		
975	10804 Javelot	+ 3 3696	- 0 0555		- 19 853	- 0 060		8208
976		+ 3 3749	- 0 0572		- 19 857	- 0 060		
977	108 R P L	- 0 0367	- 0 5004	+ 0 084	- 19 808	+ 0 010	- 0 01	8213
978		+ 3 3633	- 0 0583		- 19 882	- 0 055		
979		+ 3 3079	- 0 0583		- 19 888	- 0 054		
980	17 Piscium ϵ	+ 3 0585	+ 0 0030	+ 0 020	- 19 916	- 0 042	+ 0 45	8233

955—969—Proper Motions adopted from *Greenwich Catalogue*

Mean Positions of Stars for 1864 January 1st

Number	Star	Magnitude	Estimations	Mean Right Ascension			Mean Polar Distance			Observations	Fraction of Year
				<i>h</i>	<i>m</i>	<i>s</i>					
981	35 Cephei γ	3.3		23	38	47.83	13	7	37.0	3	0.80
982		9.2	1	23	34	20.29	147	27	26.3	1	0.82
983		8.0	1	23	35	11.20	148	42	53.3	1	0.86
984		9.2	2	23	36	46.75	106	2	13.8	2	0.75
985	9583 Lacaille	8.7	2	23	38	50.59	123	43	53.6	2	0.79
986		9.7	1	23	41	4.67	128	46	38.4	1	0.82
987	δ Sculptoris	4.5		23	41	50.21	118	52	56.8	11	0.82
988		8.5	1	24	41	58.37	142	4	25.9	1	0.71
989		9.4	1	23	42	41.88	150	54	3.2	1	0.85
990		9.4	2	23	47	43.66	128	50	58.4	2	0.81
991	9641 Lacaille	7.8	1	23	48	2.04	128	7	14.7	1	0.82
992		8.5	1	23	49	57.25	148	53	24.9	1	0.86
993	R Cassiopeæ Var 3	9.5	1	23	51	30.50	39	22	8.6	1	0.82
994		9.0	1	23	51	45.33	152	20	38.6	1	0.85
995	28 Piscium +	4.0		23	52	19.68	83	53	23.5	11	0.80
996	9686 Lacaille	6.9	3	23	53	32.44	143	51	15.3	3	0.78
997		9.2	2	23	55	58.46	130	17	1.3	2	0.81
998		8.0	1	23	56	7.64	124	7	46.0	1	0.86
999	10994 Taylor	7.7	1	23	57	47.27	147	36	0.5	1	0.74
1000	9,21 Lacaille	6.9		23	59	15.72	139	50	3.3	1	0.86

993 —R Cassiopeæ Var 3 —Period 426 days —Range, 5th magnitude to invisibility

— 49 54 2

Observed with the Madras Meridian Circle in that Year

Number	Star	In Right Ascension			In Polar Distance			Number in B A C
		Annual Precession	Secular Variation	Proper Motion	Annual Precession	Secular Variation	Proper Motion	
		<i>s</i>	<i>s</i>	<i>s</i>				
981	35 Cephei γ	+ 2 4179	+ 0 0738	- 0 020	- 19 924	- 0 031	- 0 15	8238
982		+ 3 8061	- 0 0532		- 19 930	- 0 045		
983		+ 3 8099	- 0 0561		- 19 937	- 0 043		
984		+ 3 1109	- 0 0081		- 19 953	- 0 037		
985	9583 Lacaille	+ 3 1709	- 0 0248		- 19 970	- 0 034		8275
986		+ 3 1607	- 0 0244		- 19 987	- 0 029		
987	δ Sculptoris	+ 3 1304	- 0 0161	+ 0 009	- 19 992	- 0 026	+ 0 10	
988		+ 3 2069	- 0 0408		- 19 993	- 0 028		
989		+ 3 2533	- 0 0590		- 19 998	- 0 027		
990		+ 3 1297	- 0 0237		- 20 026	- 0 015		
991	9641 Lacaille	+ 3 1269	- 0 0230		- 20 027	- 0 015		8331
992		+ 3 1692	- 0 0512		- 20 036	- 0 011		
993	R Cassiopeæ Var 3	+ 3 0117	+ 0 0364		- 20 041	- 0 007		
994		+ 3 1639	- 0 0590		- 20 042	- 0 008		
995	28 Piscium ω	+ 3 0672	+ 0 0047	+ 0 010	- 20 044	- 0 005	+ 0 13	
996	9686 Lacaille	+ 3 1237	- 0 0407		- 20 047	- 0 004		
997		+ 3 0920	- 0 0240		- 20 052	+ 0 001		8331
998		+ 3 0874	- 0 0185		- 20 052	+ 0 001		
999	10994 Taylor	+ 3 0925	- 0 0495		- 20 054	+ 0 005		
1000	9721 Lacaille	+ 3 0772	- 0 0336		- 20 055	+ 0 003		

987 — Proper Motions adopted from ' *Stone's Catalogue* '

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